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## PSYCHOLOGICAL STUDIES FROM THE CATHOLIC UNIVERSITY OF AMERICA

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# The Development of Meaning

By

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# THE DEVELOPMENT OF MEANING

BY

AGNES R. McDONOUGH

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## I. INTRODUCTION

### a) *The Nature of the Problem.*

The problem of the present investigation was suggested by Weld's Study, "Meaning and Process as Distinguished by the Reaction Method."[1] In this work Weld employed as stimuli twenty-nine printed words, whose meanings were unknown to his observers at the beginning. By the use of drawings of objects represented by the words, the experimenter conveyed a

[1] Studies in Psychology Contributed by Colleagues and former Students of Edward Bradford Titchener. Worcester, Mass. 1917. Pp. 181-208.

meaning to his subjects by exhibiting the words and drawings several times. The main object in these experiments was a study of the problem of imageless thought. Weld did not expressly take up the problem of the present investigation. His use, however, of unfamiliar words suggests a further investigation of this interesting question. Words are not like objects, which by their very nature, arouse a meaning of some kind in the mind of the perceiver. Words in themselves are indifferent symbols—to which a meaning has—at some time—been attached. Familiar words are those to which we have ascribed meanings long ago. On viewing them, meaning arises so spontaneously that we can scarcely describe how the symbols awaken immediately a definite response in our minds. It is possible that Weld's method of experiment will throw some light on this interesting epistemological problem.

b) *Literature on the Subject.*

The experimental literature on this question might be made to include the whole modern investigation of imageless thought. That portion which bears directly on it is nevertheless rather limited. Early experiments on the relationship in temporal sequence of meaning and imagery were made by Moore in the laboratory of Professor Külpe in Munich. The results of an examination of nine subjects are given in an article, "Temporal Relations of Meaning and Imagery," printed in the Psychological Review, May, 1915. Moore used as stimuli familiar words, and discovered that eight of the nine subjects reported the presence of meaning as prior to that of imagery, that is, visual and kinaesthetic imagery. The experiment led to the confirmation of the theory that a thought process can be present without simultaneous imagery and it is unnecessary to draw all meanings and thoughts from the contemplation of imagery.

Somewhat later, Edward C. Tolman[2] criticized this method of using familiar words as stimuli, and substituted words representing black and white objects,—then requiring subjects to react,—a) when they knew the object was black or white, irrespective of

[2] More Concerning the Temporal Relations of Meaning and Imagery. Psychol. Review. 1917, xxiv. Pp. 114-138.

the way in which this was known; b) when they could see it from their visual image. He thus introduced an entirely new problem not actually capable of comparison with that of the preceding study. In introducing such stimuli, visual imagery was perforce of assistance in the solution of the problem, and the results obtained could not be said to have disproved the conclusions drawn by Moore, viz., that imagery does not always precede meaning. Moreover, the interpretation given by Tolman's subjects savored of the "analyzed meaning" type rather than the "simple meaning" referred to by Moore. Consequently, the long reaction times for *meaning* are easily understood. Another thing to be taken into consideration is the fact that several subjects made no distinction between the two tasks assigned,—react to *meaning;* react to *image.*

This has been found, as we shall see later, by other observers. Weld's type of experiment is particularly adapted to suggest to the subject that the meaning is the image, for when one learns the meaning of an unknown word merely by looking at a picture, the only source of his information about the word is the visual presentation. When the visual presentation recurs, it may be regarded by the subject as the meaning. If he cannot interpret the picture, then the only thing a subject can do when he is asked for the meaning of the word is to recall the image of the picture and describe it.

It is not to be wondered at that some subjects do not distinguish the tasks, *meaning* and *image,* when the words represent things that can be visualized. Whether they do so or not depends upon whether or not they have learned to define a meaning as the imaginary representation of an object. Such subjects differ from others not because they do not experience what others term *meaning,* but because they give their experience some other name or have not learned to label it at all.

Weld criticizes Moore for not distinguishing between what he terms the "process-attitude" and the "meaning-attitude," which he defines respectively as the "attitude of reporting or describing psychological experience *without reference* beyond itself," and 2d., "the attitude of establishing the signification or *reference*

of a stimulus object." Weld's contention is that all Moore's subjects reacted to *meaning* only, since the experimenter himself did not realize the "difference between the image-of-object and the image as image."

Woodworth[1] nicely disposes of the useless contention on the *Kundgabe* or expression error and the *stimulus* or object error. He says in part, "Yet consider the situation of an observer who is forbidden to refer to the object in describing his images. He would have to confine his report to such statements as 'a bright, somewhat variegated spot against a dark ground,' omitting to state that this was an image of his friend's face. Yet, if the image, whether faint or vivid, schematic or detailed, was for him, at the moment, an image of his friend's face, can he properly describe the consciousness of that moment without reference to his friend? No question of the logic of meaning is here involved, but a mere question of fact. Was or was not a reference to the object present in the momentary consciousness; and, if so, can the state be described without reference to the object? The same question arises when we have a presented object instead of an image. If I stick closely to the momentary experience, reference to the object is quite in order and in fact indispensable; for, as a matter of fact, reference to the object was probably the most important part of the experience. This is equally true in the case of an image, and I must conclude that an observer is perfectly justified in reporting an 'image of his friend's face,' and that he could not omit this reference to the object without badly mutilating the experience."

The aim of introspection is to secure an accurate account of consciousness at a given moment. If subjects were instructed to describe only the "image-as-image," a true statement of the experience would be considerably altered. "Objective reference" is so closely connected with the image that it seems unscientific to separate the two.

We tried to make it clear to our subjects that they should describe the *first* image which came to mind. We did not counsel

[1] Woodworth, R. S. A Revision of Imageless Thought. Psy. R., Jan., 1915, pp. 7, 8.

a "reference to the object." Spontaneous reference to the object was common, and an effort to describe the image apart from the object associated with it in the learning would have involved useless effort, an expenditure of energy unimportant in the work, and having no real bearing on the problem in hand.

## II. Method of Experiment

### a) *Apparatus, material, observers.*

Weld's method of experiment was adopted. This consisted in choosing a list of unfamiliar words, with drawings illustrating their meaning, from the Century Dictionary. On separate cards, words and drawings were printed. The first task of each subject was to associate the picture with the word whose meaning it illustrated. This association was established by placing a word and a drawing before the subject, who was cautioned to look carefully at both and concentrate attention on each set as exposed for two seconds. This process of showing picture and printed word was continued until the subjects became fairly familiar with the material. Several series were taken with the apparatus, presently to be described, before coming to the experiments, the results of which are tabulated.

The apparatus used consisted of a Hipp Chronoscope, controlled by a Wundt Control Hammer, the constant error being $48\sigma$, the variable error less than $5\sigma$. The cards were shown by means of Ach's Kartenwechsler. A Dunlap Voice Key completed the apparatus. In the beginning, the subjects reacted by speaking against the membrane the word "Now," or "No." Sometimes the voice was so pitched that the breath seemed to strike the key fitfully, and the chronoscope did not register till the expiration of the response. Then the subjects tried blowing instead of speaking, and as this method of reaction proved quicker and more satisfactory in every way, it was employed throughout the remaining trials. A direct current of 110 volts, reduced by rheostats, was used. This afforded a very constant source of power. The words used in the first set of experiments were the same as Weld's, viz.:

| | | | | | |
|---|---|---|---|---|---|
| Cresset | Hubblebubble | Peruke | Mambrino | Martlet | Heaume |
| Argali | Hippogriff | Araba | Aplustre | Besague | Koto |
| Costrel | Aquaemanale | Chela | Ampyx | Corbel | Mace |
| Pavon | Parbuckle | Burin | Dagon | Chank | Brob |
| Jougs | Acontium | Kago | Sabbaton | Mino | |

The subjects who took part in the experiments, with but one exception, were untrained in psychological observation. Though some had taken a general course in Psychology, the present work, with all but this one subject, was their first attempt to act as observers in a psychological experiment.

b) *Preliminary learning.*

In the first experiment, the instructions to the subject were as follows: "I shall give you a preparatory signal of two seconds. Then I shall expose a word. Now I shall ask you to react by blowing against the voice key when you can detect the presence of the image; again I shall ask you to react to the meaning which you have attached to the word you see. Try to note what takes place in your mind from the time you first see the word until you fulfill the task assigned. This I shall ask you to report after the reaction."

In a second set of experiments the instructions were similar, but perhaps fuller in order to prevent reaction to mere familiarity with the word when the task was meaning. "Look at each picture and interpret it,—i.e., try to think what it is intended to illustrate. This interpretation is the meaning of the picture. Later you will be called upon to react to the word designating the picture, a) when you can think of the interpretation; b) when you can visualize the drawing. Do not formulate your interpretation in words as if you were giving a definition. React by blowing against the voice key according to your instructions." "React to the task as in the preceding experiment, but when the task is *meaning* do not respond to simple familiarity with the word as one of the present series. Wait until the interpretation you have assigned the word is present."

The learning process in this new material differed in no wise from that of the first. The words were more readily learned because of the training received in the first experiment. A new

set of words was chosen, being again taken from the Century Dictionary. The words were:

| | | | | | |
|---|---|---|---|---|---|
| Warkamoowee | Emplectum | Maravedi | Trousse | Limber | Mether |
| Ophicleide | Hypogeum | Furcula | Pantiles | Gablet | Biberon |
| Acrostolium | Erminois | Parement | Lorcha | Theseum | Winch |
| Agonoderus | Xylophone | Aftaba | Francisca | Camail | Hooka |
| Modillion | Nog | Epi | | | |

After several trials the definition of the words as given in the Century Dictionary was introduced. It was interesting to note how, in some instances, the interpretation given by the subject, prevailed alongside the new interpretation supplied by the formal definition.

The Quantitative results of Experiments I and II are given in the *Appendix*. Reaction times measuring over 3000 σ are noted, but not counted in finding the Mean Reaction Time.

In the first series of experiments control words were introduced to secure reaction to real words, but no attention was paid to the reaction times. In the second series, we tried to distinguish the basis of the judgment, "That is an unfamiliar word," and noted reaction times for control words. In the second experiment also, the words presented under task *Image* were at the next trial given under *Meaning*. Several trials with words were followed by trials with pictures, reaction being asked to *Meaning* or *Word*. The results will be mentioned later.

## III. Qualitative Results

### A. *Elements to be distinguished in the perception of a word*

#### 1) *The reason for the tone of familiarity*

The use of unfamiliar words enables us to distinguish very clearly between "familiarity" with the word as something seen before and an imageless knowing of what it represents. This tone of familiarity comes very quickly in the process of learning what a word designates. Before a subject can give any details whatsoever about the meaning of a word, and before the word calls to mind even the shred of an image,—he is able to say with absolute assurance, "I have seen that word before." A few introspections will illustrate the point.

| | | |
|---|---|---|
| Subject 1 | | |
| 9/18/17 | Burin | The word was very familiar, but I could get no image, and an effort to recall it was unsuccessful. |
| Subject 3 | | |
| 9/14/17 | Corbel | First came the knowledge that this was a familiar word in the series. Then I tried to think which one it could be. After a while there came the visual image of a bird, along with the idea that corbel has some meaning in architecture. |
| " " " | Pavon | I know this is one of the words I have learned, but I cannot recall the visual image. |
| " " " | Kago | I reacted only to the knowledge that this is one of the words of the experiment. This knowledge was accompanied by doubt that I would be able to get the image. |
| " " " | Argali | I was in doubt at first as to whether or not this was a Vexierwort or a familiar one. I concluded it was familiar and reacted, but even yet I cannot recall the image to which it refers. |
| " " " | Koto | First there was the feeling of familiarity with the word. I know it is one of the words, but I cannot recall the picture. |
| " " " | Ampyx | I knew that this was one of the words of the series, but I knew not to what it referred. |
| 9/18/17 | Kago | I think this is one of the words, but I am not sure. It possesses vague familiarity. |
| Subject 4 | | |
| 9/18/17 | Martlet | The word was familiar, and I tried to get the image. Then came the image of the bird in a large glass cage. |
| " " " | Brob | The word was familiar, but I hesitated before getting the meaning which came through association with 'probe.' That brought the image of three objects of which I do not know the name. They are used for opening up something. |
| Subject 5 | | |
| 9/20/17 | Chela | The word was familiar. After brief hesitation the image came, but there was doubt about its correctness. Later this doubt was followed by assurance. It looks like the claw of a crab. |
| 10/21/17 | Peruke | I can get no meaning, no image, no association, but I know the word is in the series. |
| " " " | Mino | There is no image, no meaning, no association. The word, however, is familiar. To this familiarity I reacted. |
| " " " | Heaume | I recognized the word, but could get no image. |
| " " " | Acontium | I can get no meaning and no image, but word is familiar. |
| Subject 6 | | |
| 9/20/17 | Peruke | The word is familiar, but I cannot recall the picture, nor have I any idea of the meaning. |
| " " " | Araba | I reacted to familiarity with the word. I get no image. |
| " " " | Ampyx | The word has no meaning for me. I know I have seen it before, however. |
| " " " | Argali | Unable to get either an image or the meaning, I reacted to familiarity with the word. |

As revealed by the introspection, none of the subjects could give any basis for this judgment of familiarity. It is an imme-

diate judgment, often absolutely certain in the subject's mind, and based on something in his past experience which, if it acts in the present, produces its effects in a manner wholly unconscious to the subject.

The tone of familiarity may be better understood by contrasting it with the feeling of unfamiliarity which accompanied the control words: e.g.:

| | | |
|---|---|---|
| Subject 1 | | |
| 9/18/17 | Rasmer | I did not recognize the word, which is a new one. I get no meaning, no image, no association. |
| " " " | Hernat | An unfamiliar word, with no meaning, no image, but suggesting "Hermann und Dorothea." |
| 11/10/17 | Lando | Immediately I was conscious that this was a word foreign to the series. |
| Subject 2 | | |
| 9/18/17 | Krand | There was doubt as to the familiarity of the word; then I knew I had never seen it before. It conveyed neither image nor meaning. |
| " " " | Brund | This is a new word, which I have never seen before. I delayed reacting because I thought you had made a mistake by putting it in. |
| " " " | Lando | I saw it was a new word and made no effort to get meaning or image. |
| Subject 3 | | |
| 9/18/17 | Brander | The word appeared unfamiliar. It had no associations whatsoever that would come up. I think this lack of an association gave it an unfamiliar character. |
| " " " | Wrant | Absolute unfamiliarity and a feeling of impossibility to find any associations, which made me almost certain that it was a new word. |
| 9/20/17 | Rasmer | This appeared new. Again there was no association, but something "rasmer" about it. |
| " " " | Hernat | Here again there was the feeling that this was a new word, with no associations that fitted in with the rest of the material. The word 'hermit' came, but it seemed to belong with this word and with nothing else. |
| 10/28/17 | Ramro | Prompt recognition of an unfamiliar word, the basis of which is not conscious to me. |
| Subject 4 | | |
| 11/11/17 | Lando | I know that this is a word not in the series. |
| " " " | Brund | I knew at once that this was a control word. |
| Subject 5 | | |
| 9/20/17 | Krand | This is an unfamiliar word. I had the remembrance that I must not react to nonsense words. The word had no associations. |
| " " " | Merton | Unfamiliar. "Merton Hall" came, but there was no image. |
| Subject 6 | | |
| 9/20/17 | Merton | At first I thought that I had forgotten. Then I realized the word meant nothing to me, no image, no association. |

Subject 7 gives no introspection, but quickly says words are 'vexier worts.'

From these sample introspections it is plain that the *reason* why a word is familiar or unfamiliar is an enigma to some subjects. The judgment they form readily and in a determined way, but the basis of the judgment is wholly unconscious.

The possibilities of explanation of "familiarity" are as follows:

*a*) Whenever any impression makes its way to the center, it canalizes for itself a path of such a specific character that when that impression impinges upon the sense organ a second time, it proceeds with such ease along its former path that consciousness cannot possibly confuse it with an impression that is blazing its way for the first time. But neurological explanations are too hypothetical to be much more than a picturesque restatement of the facts. There may be a neurological basis for the tone of familiarity, but we must not recognize it as its only groundwork until all other possibilities have been exhausted.

*b*) The tone of familiarity or unfamiliarity is due to the *conscious* tendency of images or meanings to recur. But as a matter of fact, we have no evidence that subjects are aware of a tendency for images or meanings to occur when they experience familiarity. On the contrary, the very absence of association constitutes a peculiar feeling of blankness that is present when familiarity arises in its pure state, i.e., without any further intimation of meaning. Subjects have no inkling of any reason for their saying that the word before them is familiar or unfamiliar. The introspections last noted are apparently direct evidence of such a state.

*c*) The feeling of familiarity or unfamiliarity is due to subconscious associations which in general do not rise above the level of the dimly conscious. This is probably the basis of the judgment—familiar or unfamiliar. The association may be nothing more than the situation in which the word was previously experienced. Though the evidence on this point is far from conclusive, the only information that we have from any of our subjects points to the possibility of associations constituting the subconscious basis of judgment in the tone of familiarity and unfamiliarity.

### 2) *The basis for the judgment of unfamiliarity*

The control words used in the first experiment were employed to prevent a subject from reacting to nonsense words. Not very much attention was paid to them. In the second experiment an effort was made to discover the basis of the judgment of unfamiliarity. The descriptions are rather meager, some subjects being unable to tell why the word was immediately classed as a control; others, giving little information when questioned. The observers are unable to summon images, meanings or associations, and because of this inability, they conclude that this special word is not known. The control words are not assimilated to any mental categories. This lack of association forms the basis of the feeling of unfamiliarity. There is no "link" by means of which past experience claims the words as part of its content. Therefore, subjects decide that the word is a new word, unaccompanied by anything that makes the other words recognizable.

Subject 1

| | | |
|---|---|---|
| 1/ 1/18 | Burl | This is a control word. These words send some kind of sensation through me,—in through my eyes and down my back. It is like seeing a strange face. |
| 1/17/18 | Traft | As soon as I saw the word, I was conscious that it was a control word, because it was not in the series. At the first glance it looked strange. Then came the conviction that it does not belong to the series, and is wholly unknown to me. |
| " " " | Taskat | This is a control word. It separates itself into two parts. Although I noticed a difference in spelling, yet the last part brought up "cat." |
| 1/20/18 | Butan | The word resolved itself into two parts, and I observed that the last part was spelled with an "a" instead of with an "i". I know that this is a strange word not belonging to the series, but in my mind there is a strong resemblance to a proper name, and all the associations connected with that name arise. |
| " " " | Trep | This is a word not in the series. I noticed here, as in the other words, that as soon as I am conscious that the word does not belong to the series, I start analyzing the word as a word. I seem to look for roots or stems. |
| 1/27/18 | Edtom | The word does not belong to the series, but I would not class it as a nonsense word. I separated it into the two proper names, Ed, Tom, which gave much interesting association. |
| " " " | Marix | The strangeness of the word at first bothered me. I have never seen it before. |

Subject 3

| | | |
|---|---|---|
| 1/13/18 | Darma | Here, the word brought up the association of "dhamma," and also of "karma." These associations seemed to me to be distinctly new ones. They did |

not belong to the general setting of words previously experienced, opening up incipiently a train of thought which had not previously been connected with the associations of this set of words. All this formed the basis of a judgment very promptly given as an "entirely new word."

" " " Traft — A peculiar void comes when a new word appears. It seemed, therefore, to belong to the general type of the words of the series, but no associations were aroused or seemed to be in prospect of coming, and this apparently gave me the conclusion that this is a new word. I believe this is the basis of the judgment.

1/20/18 Trep — I did not notice any means here. It suggested the German *treppe,* and did not fit in well with any previous line of suggestion. The basis of the judgment appeared absolutely immediately, with no mediatory steps.

" " " Marix — The first impression is that of newness, and I was conscious of no associations whatsoever. This word led me nowhere. The other words of the series did lead me somewhere. It seems that this peculiar void, this inability to do anything with the word is the basis of the "sense of newness."

### 3) *The visual image*

When the only experience that a subject has in connection with a word is a visual perception of a drawing in company with which it was presented, it sometimes happens that the signification of the word is felt to be satisfactorily realized only when the original drawing is imaged.

Furthermore, in the case of words thus associated with drawings, a visual image of the drawing may be recalled when the word is presented. Some subjects look upon the visualization of the drawing as the *meaning,* paying no attention to any further mental processes which may have arisen in the interpretation of the original picture. Thus Subject 5 maintained for a long time that for her the *meaning* was the *image.* Without vouchsafing further information, we continued the trials, now asking for *meaning,* now for *image* in spite of the subject's continued reminder that "the task did not matter." Therefore, it is probable that this attitude affected reactions throughout the first experiment, and nothing except *image* was sought for. Continued trials revealed that for Subject 5 image and meaning came at about the same time, with, perhaps, the image preceding. An effort to separate the two was impossible until the subject at length clearly

distinguished the difference in the tasks. Because of the method employed in learning, the image was inseparably connected with the word, and was consequently given as both *meaning* and *image*. Another difficulty to the reaction to *meaning* was apparent when this observer in one introspection said that *meaning* signified *purpose*. The concept of utility naturally requires more time to develop than the visual image, so intimately concerned with the word in the learning process. Even in the next experiment, when this subject notes well the difference between concept of purpose and simple meaning, images rise so spontaneously that in point of time they precede either association or meaning.

This idea of *image* as *meaning* was likewise held by one of Weld's subjects. Ogden also found a subject who interpreted *meaning* in this way. Some of Tolman's subjects seemed to have looked upon it in the same light.

Even under circumstances such as obtained in the present investigation, viz., where in learning the meaning of a word, nothing but a drawing was given the subject,—the general experience was that something else besides the image was present, readily distinguished from it and appropriately designated as the meaning.

### 4) *The meaning*

In the process of learning the meaning of a word, the visual image is not all that is associated with the printed word. There is something else present, scarcely to be designated by any other word than "meaning" itself or one of its synonyms.

This *meaning* is sometimes made up of elements. Subject 2 gives an instance of meaning, consisting of two elements. In the introspection dated November 17, 1917, in reaction to the word *Kago,* this subject remarks: "A conveyance for carrying a person,—as a hammock."

Herein are contained two elements,—a) that of a *means,* viz., a conveyance; and b) that of an end,—"for carrying a person." These are logical elements of which the image is merely the illustration. The logical definition is an analyzed product, requiring longer reaction time for formulation than the simple unan-

alyzed meaning, frequently the very *first* thing noted in consciousness. The early trials evidence the presence of simple meaning. A glance at reaction times might lead one astray; in the introspection alone is disclosed the cause of long reactions. Subjects delayed because they waited to formulate a definition when called on to react to meaning, a delay which had no counterpart when the task was *image,* but which would, I think, be simulated by a hesitation due to examining image as image, an examination which did not occur.

Stage 1. Meaning mediated by the image.

The usual way of knowing that simple meaning was in consciousness was through what subjects called "a feeling of knowing," the awareness of the mind's possession of information concerning the particular word in question, and the feeling of satisfaction that that ability to formulate the meaning in words would stand the test of proof. This recognition of the interpretation was quick, and with our subjects prior to image, even in the case of Subject 5 whose introspection in the second experiment admits such a general statement. In some cases, it was so rapid that the subjects without any suggestion at all, volunteered the information that they found it impossible to react to the appearance of this "feeling" as quickly as it came. Subject 6 observes on December 22, 1917: "I notice that I am unable to speak simultaneously with the presence of the meaning or the image. It is getting more difficult to secure the images. The image and the meaning seem to come at the same time. The thought that I must be absolutely truthful acts as a hindrance to the quickness of the reaction."

The matter of priority in time is not of moment. What is of consequence is the subject's acknowledgment every now and then of the 'something' going on in consciousness other than the summoning of the image, (usually here the visual image). Nor do we deny that the image has a part to play in that something which we term 'meaning.' With different subjects, the relationship and dependence of image, association, and interpretation varied. With some, the image helped to secure the meaning or

at least confirmed the meaning already in mind. With others, the two were so close that subjects found themselves unable to tell accurately which preceded; and finally, in the case of the subject skilled in experimental practice, the image lost its importance and sometimes failed entirely to appear in consciousness. Besides the comparison afforded by a study of the work of the various observers, another development became quite noticeable in the responses of amateurs as the trials increased. Early experiments revealed the importance of the image; further work showed the image dropping in importance and yielding to the meaning or appearing about simultaneously. Practice in introspection brought out the gradual predominance of meaning over image and the fading out of the latter, attended by a securer hold of the former. These three stages are quite easily understood by reference to the accounts given by observers in various times throughout the entire series of trials. Noticeable departures from these stages can safely be attributed to irregular trials. At times a month elapsed between one experiment and the preceding trial, and this long interval seemed unfortunate. A subject who experienced these delays quickly recognized the necessity of coming to the work at regular intervals.

This is readily understood, for the familiarity of the new words of the series was retarded by lack of practice, and usually the first two or three words were little more than a puzzle to the subject. After about four trials, the familiarity or tone of familiarity for the remaining words was revived. Consequently, anything like a regular curve is not to be expected.

The out-and-out statement that meaning *is* the image does not appear in the several papers mentioned in the literature on this subject, but that position seems implied. The meaning would then be either a) the image, or b) a blend of images. That it is neither the one nor the other, but a new form of mental activity, another sort of attack on a word or symbol, seems evident from the reports of the subject taking part in these observations, where, on account of the choice of isolated words, imagery tended to abound. Another factor potent in conjuring up imagery is the fact that frequently the unusual words required a dwelling upon

for explanation. That dwelling on the word left ample time for a summoning of images, whereas a rapid reading of these same words in connected prose would have been attended, perhaps, by no such imagery.

At the very outset, with one exception, the subjects observed the difference in the two tasks, noticing also the usefulness of the image in the first trials. At times, the presence of the image was essential for the oncome of interpretation. In one case, even in the first few trials, the image always played a subordinate role in securing the thought, the concept. This early imagery was vivid and as a rule easily summoned or even arising spontaneously with no apparent effort on the part of the subject. At this stage the image usually appeared sooner than the meaning.

| | | |
|---|---|---|
| Subject 1. | | |
| 9/10/17 | Cresset | Torch. The meaning was slow in formulating itself into words, but the image came immediately. The smoke was strongly imaged. The body itself and the handles were quite dim. Both vanished a little below the torch part. |
| " " " | Mino | As soon as I saw the word, the image came, and I was conscious that the word referred to a person wearing a strange coat, which is used in some countries as a rain coat. I remembered having seen such a coat. |
| " " " | Hubblebubble | As soon as I saw 'hubble,' the image of a pipe came, and a comparison between it and a meerschaum pipe. The likenesses and the differences were strongly marked. I was conscious of the presence of the meaning, but I did not formulate it into words. |
| Subject 2. | | |
| 9/18/17 | Chela | Claw of a crab. The image came first. Then I associated the picture with a crab I have seen. |
| " " " | Pavon | The image came of a sort of pennant or flag. Then a word seemed to be in my mind, but I could not get it accurately. Its meaning is 'peacock.' |
| " " " | Aplustre | The image of the back of a ship came, then the meaning. There were no associations. |
| Subject 3. | | |
| 10/14/17 | Parbuckle | The meaning came promptly, preceded, I think, by the image. The meaning was that of a lever, a contrivance for lifting or lowering a barrel. |
| " " " | Besague | After a while, there came a faint image of a kind of mattock. I have the impression that this is correct. The image here led to the meaning. |
| " " " | Chank | The meaning came as a kind of shell, and was preceded, I think, by the image. |
| " " " | Araba | The meaning was distinctly preceded by an image. Then came the interpretation,—a kind of carriage. |

| | | |
|---|---|---|
| " " " | Hippogriff | I think the image came first, and I reacted to a vague meaning of some kind of mythological creature. |
| " " " | Acontium | A kind of dart, preceded, I think, by a vague image or perhaps the idea of something sharp. The nose is sharp, so are the fingers, and the dart. |
| 10/28/17 | Chank | Meaning distinctly preceded by image, which led to the meaning, some kind of shell. |
| 11/18/17 | Hippogriff | Meaning preceded by image. A mythological animal. |
| Subject 4. | | |
| 9/18/17 | Koto | I was puzzled at first. The image came and then I recognized the word. This is a couch. There may be a person reclining on it, as in the old Roman fashion. |
| " " " | Hippogriff | I recognized the word, but was doubtful until the image confirmed my recognition. The effort I made to react quickly prevented my doing so. |
| 11/17/17 | Araba | Arabs, then covered wagon. The image helped me to get the correct meaning. |
| Subject 5. | | |
| 9/20/17 | Chank | The word was familiar; then came the image of a shell, which I associate with the word, cochlea, seen at some time and revived in memory. There is a pinkish color inside. |
| " " " | Kago | The word was familiar. The image of the picture and the revived image of a Japanese jinrikisha came. I associate the *go* of the word with motion. |
| Subject 6. | | |
| 10/21/17 | Jougs | The image of a man came, then I decided that *Jougs* was the man's name. Still I hesitate to say whether the word applies to the man or to something on him. |
| " " " | Hubblebubble | The last part of the word suggested bubbles and the affair for making them. The image came first, I think. |
| 11/17/17 | Hubblebubble | I had to get the image before the meaning came,—an instrument the use of which I do not know. *Bubble* suggested that bubbles may be in it or in connection with it. |
| Subject 7. | | |
| 3/ 3/18 | Agonoderus | I saw the image first. The meaning came a little afterwards. |
| " " " | Furcula | The image came first, and in the meaning after,—something which looks like a wishbone. |
| " " " | Biberon | An image which looked like a water jug came,—then I had the meaning, water jug, and the words came. |
| 4/14/18 | Erminois | I tried to think what the word meant, but the image came before I could get any meaning. |

As the number of trials increased, the meaning tended to become less dependent on the image, and in what might be designated another stage of learning, we obtained different results.

Stage 2. Meaning and image simultaneous.

At this stage the meaning and the image came simultaneously or so closely related in temporal sequence that the subject could

no longer say, "The image preceded." However, the nature of the task always seemed to have an influence on the *first* observable thing in consciousness, bringing about what some psychologists have called a "dispositional tendency." The various subjects endeavored to hold *meaning* in abeyance when *image* was called for, and vice versa. All this time an interpretation of the particular words was becoming more definite and frequently appeared at the same time as the image. Whereas the image was the spontaneous element in the previous trials, meaning now assumed this character of spontaneity and it was more or less accidental which came first. The formulated, lengthy meanings gave place to shorter, even one-word definitions. What might be considered a typical description of the task at this period is the report of simply what was called for; *e.g.,* when task was *meaning,* only the interpretation was described, as if *meaning* came independently of *image.* The reactions are apparently only to the task assigned, and any difficulty in recording in the order just given is noted. A usual answer was, "The image and the meaning came together or so closely connected that it was impossible to notice which one appeared first." The dividing line between this stage and the next is hard to estimate. Here are a few sample introspections.

| | | |
|---|---|---|
| Subject 1. | | |
| 11/10/17 | Sabbaton | Sandals, with strips across the top or upper part of the foot. These strips were very strongly marked. The foot was quite broad for the length. |
| " " " | Chank | The image of the shell in an upright position came, and with it the consciousness that it is different from anv shell I have seen. |
| " " " | Martlet | The image of a bird on a shield came promptly. |
| " " " | Besague | A hammer. I was conscious that the shape was very odd. |
| " " " | Parbuckle | There was little difference between the image and the meaning. I think the image came first, but I am not sure, so close were they. |
| Subject 2. | | |
| 11/11/17 | Dagon | A kind of man with armor. The meaning and the image came together. |
| " " " | Argali | An animal with large horns. The image is very distinct and it came at the same time with the meaning, shaggy goat. |
| " " " | Peruke | Wig. The meaning and the image came together. |

| | | |
|---|---|---|
| Subject 3. | | |
| 10/14/17 | Acontium | The image and the meaning came very closely together. The image was, for me, fairly clear. |
| " " " | Sabbaton | There came the image as of a few black lines, with the characteristic curve of the toes. |
| Subject 6. | | |
| 9/20/17 | Burin | The word was familiar at once, and the image came even before I reacted. The use of the instrument came at the same time as the image. |
| " " " | Mambrino | Hat. Meaning and image together. I associated this with Panama hat. |
| " " " | Chank | Sea shell. The image of a sea shell and the meaning came together. There were no associations. |

Stage 3. Meaning, without the mediation of the image.

In the second stage of learning, we have noted that meaning and image occur in various temporal relations, not fixed to any sequence, but having a tendency towards independence. Even at this time the tasks are quite distinct. Gradually, the response to the task *meaning* illustrates a shaking off of the image, sometimes disregarding it entirely. When the words were scarcely familiar, the image rendered good service in confirming or even establishing meaning. Its function has now ceased to be of importance. As the learning process continued, the meaning has grown more fixed, more independent, more logical, while the image has lost its vividness and become vague and fragmentary, appearing, too, only as portions of the whole picture.

| | | |
|---|---|---|
| Subject 3. | | |
| 11/11/17 | Hubblebubble | The image was very faint,—one that would be absolutely unrecognizable. Only later did the characteristic steam or smoke which comes from the hubble-bubble arise. The visual images are becoming much weaker and more imperfect, not schematic, but fragmentary. |
| " " " | Maravedi | A kind of coin, with image in the background, and apparently no longer essential to getting the meaning, which came by direct association with the word itself. |
| " " " | Agonoderus | I was waiting for the image, and it seemed to be a different task from waiting for the meaning; something in which there is less effort required. It seems as if I can do something to get the meaning, but for the image I simply have to wait. It finally came, I think, after the meaning. |

At this point, the presence of meaning seemed necessary either for *a*) securing the *correct* image, or *b*) confirming the accuracy of the image which had spontaneously arisen. At times, one

image was rejected for another, and frequently also *meaning* was present without image.

| | | |
|---|---|---|
| Subject 1. | | |
| 11/17/17 | Acontium | There came the image of a man with a long spear on his shoulder,—the head was somewhat turned aside, and the profile was quite distinct. I do not know what he really represents. |
| " " " | Martlet | Image of bird on shield came, but with the image comes the consciousness that I do not really know what it represents or signifies. I think I would forget the images eventually. |
| Subject 2. | | |
| 9/18/17 | Ampyx | The image is of two women with crowns on their heads, but I do not know whether *ampyx* applies to the crowns or to the women. |
| " " " | Acontium | The image as in the series came. I cannot give an exact meaning, though. The man is hurling something, perhaps a javelin or spear. |
| 11/17/17 | Brob | There was an association with *probe,* then the image of the nails came, but I do not know whether there were two nails or three. I notice that the images are becoming dimmer. |
| Subject 3. | | |
| 10/14/17 | Brob | The image came but I am uncertain as to its correctness. The image of the tacks came; I cannot account for the uncertainty. |
| " " " | Koto | The image came, but I am uncertain of it. It was a strawlike garment, but it does not appear to be the correct image. On what the judgment of incorrectness is based is to me unknown. |
| 11/18/17 | Cresset | I had difficulty in getting the meaning, without which I could get no image. Then it appeared to me that this is the thing associated in my mind with something. The image of the tripod affair then came up. |
| " " " | Acontium | Dart, preceded by a feeling of surprise. No image. |
| 1/13/18 | Ophicleide | The meaning came instantly. The image was subsidiary, and apparently not a step towards getting the meaning. It was very faint and imperfect. |
| Subject 4. | | |
| 10/28/17 | Hippogriff | I could not get the image, but I knew the word meant an animal. |
| 11/17/17 | Hubblebubble | This is the word I am uncertain about. There is something in 'bubble' that reminds me to get the right image, but I am yet in doubt as to the correct meaning or in fact about any meaning. |
| Subject 5. | | |
| 10/21/17 | Ampyx | I have no definite meaning. For me this never had a definite meaning. There is an image of two heads with crowns or circlets on. They appear to be women's heads. |
| " " " | Chank | I am not sure of the meaning, but I think it is a shell. Chela came up first as an image, but I knew it was a claw, and not the right image, and I looked for another. |

A transition from imaged to imageless apprehension has occurred at some time in the second stage,—just when, it is diffi-

cult to say. It is remarkable that increased familiarity with the material of the experiment brought *meaning* to a certain maximum development, which remained so in spite of continued trials. The *meaning* had come to stay. Not so with the *image*. It had faded considerably, so that one subject's drawing of his image of a complicated design was little more than two curves. Associations crowded out images to a large extent and comparisons arose with little effort. Unanalyzed meanings as well as analyzed appear. In some cases the reaction time was so brief that a question arose as to the *accuracy* with which some subjects reported what had taken place before the reaction. It is not an easy task to tell just what happens from the time the printed word is exposed till the task only is fulfilled. One subject says that the exact moment of the appearance of the image is evasive. In the beginning, such was not the case, for the void in the mind as to the meaning was so changed by the advent of meaning that its presence could be very easily discovered. In this later stage, the meaning follows so suddenly on the exposition of the card that subjects confess difficulty in describing what actually took place in consciousness. It does not follow that the curve of learning should always indicate a shorter reaction time for meaning than for image. The temporal relationship is as yet a matter of chance with some. Sample introspections are numerous.

Subject 1.

| | | |
|---|---|---|
| 11/10/17 | Mambrino | As soon as I saw the word, *hat* came to me, then *sombrero,* and then the image of a low-crown hat with a strongly marked band on it. |
| " " " | Koto | A zither-like form, and then the image of an old instrument I saw some years ago, and a dim image of the attic in which I saw the instrument. |
| 11/17/17 | Parbuckle | Skids, or inclined plane. The meaning came before the image, which was dim: also a consciousness that this is different from the skids I have seen used for loading wagons. The contrast was marked. The ones I saw were not so much like inclined planes, and yet enough remains to interpret them. The images seem to be fading, and in their places real images of actual things are coming. |
| " " " | Hubblebubble | As soon as I saw 'bubble,' the meaning came and after that the image and the consciousness that it is not an ordinary pipe. |

Subject 2.

| | | |
|---|---|---|
| 9/18/17 | Burin | The meaning pencil came. The image looks as if |

| | | |
|---|---|---|
| | | there were smoke around. *Bur* suggests burn. Perhaps this is a process of burning leather. |
| " " " | Chank | Meaning came first. The word suggests conch. The image as on the card then came to me. |
| 11/11/17 | Burin | This is the word I had in mind when I reacted to another word. It is a pencil and it seems as if there is smoke coming from it as it marks the paper. |
| 11/17/17 | Araba | Coach. The meaning came first. I notice this happening now as the words of the series become more familiar. |
| " " " | Argali | Somewhat like a deer. Meaning came first, then the image. The horns are prominent. |
| " " " | Pavon | A triangular pennant. It is not necessary now to wait for the image before the meaning is clear. |

The remarks of Subject 2 are interesting. On December 22, she says: "No new meaning has come to me by seeing the pictures frequently. The images which were vague in the beginning are still vague. In some cases, the images are quite distinct; in others, they are vague, but they come at once, whether clear or not." A later introspection reads: "The images are becoming less clear, but they continue to come immediately. Now, however, because I have the meaning of the words, the images are less important."

Subject 3.

| | | |
|---|---|---|
| 10/21/17 | Aplustre | I think the meaning came first,—something which has to do with the stern of a ship, followed very promptly by a vague image of the drawing. It seems that the image was more schematic than in previous experiment. |
| " " " | Ampyx | At first there was in my mind a Greek word which I saw recently. Then I realized my task, and I had to wait for the image to come. Meantime there came to me the definition, some kind of hair band, and then the image of the two heads in the drawing, on which I doubt that I could make out the *ampyx*. |
| " " " | Aquaemanale | The image came very distinctly later than the meaning. It became difficult for me to get the image of the drawing though I knew that it had to do with some kind of water-holding contrivance. When it did come, it was very obscure. I rather think that a few black lines flitted in and out of consciousness, while I was trying to think how the thing looked, and I could not get any image that would do for quite a while. |
| " " " | Dagon | The meaning came as a kind of idol, then a very imperfect image, absolutely unrecognizable, yet I felt that these lines indicated the idol, but only, I think, because they came when I was thinking about |

| | | |
|---|---|---|
| | | the idol; i.e., whilst I was trying to get an image of the idol, a certain number of lines came to consciousness, which were recognized as representing the idol because they appeared in such a situation. In another situation I could never recognize them. Had they been drawn, nobody except myself could possibly have recognized them. |
| " " " | Besague | Meaning, some kind of contrivance for digging, came, and then the image of a mattock. |
| 10/28/17 | Mace | There came to me the meaning, some kind of war implement, with no image. Then after a distinct interval came the image of the sceptre-like drawing. Only later was the incongruity between the meaning and the image realized. |
| " " " | Chela | A kind of claw, with associations with the laboratory. I do not know that an image arose at all. If so, it was very indistinct. |

With Subject 3, whenever the meaning was slow in coming, the image was delayed considerably. With the task *meaning,* every reaction but one comes in the order described in the third stage of learning. In the exception image precedes, but introspection does not reveal the fact that it was necessary for the presence of the meaning. With the task *image,* the responses are forced or vague images. Briefly, the image is characterized as "faint, forced, fragmentary, after an effort."

| | | |
|---|---|---|
| 11/18/17 | Cresset | I had difficulty in getting the meaning, without which I could get no image. Then it appeared to me that this has associations. Then the tripod appeared. |
| " " " | Mino | The image of a straw garment came. There was delay because I had difficulty in securing the meaning. |
| " " " | Mambrino | The image came forced after the meaning, *hat.* |
| Subject 4. | | |
| 11/17/17 | Cresset | Water cress. The image came after. |
| " " " | Burin | Burnt wood, then the image. |
| " " " | Koto | Couch. It has nothing on it. |

With this subject, reactions on all following dates give meaning in shorter time than image, though the subject remarks that she prefers reacting to image, because then she feels that she is reporting more truly. It seems as if the exact moment of interpreting is difficult to recognize. In the beginning when the meaning required longer time, the subject had no difficulty in tracking the presence of meaning, but in the trials when the meaning preceded the image, it was not easy to report, so swiftly was the interpretation present.

Subject 5, throughout the first experiment gave for meaning the *purpose* for which an object is used. This undoubtedly accounts for the long reaction times of meaning. She likewise attests that in every case the presence of the image is essential for meaning, and the trials seem to lend evidence to this statement. In the beginning she declared that meaning and image were similar, but somewhat later she came to observe the two processes, and distinguished between them. Judging her work, I should rather say that image with her was so closely connected with meaning that she confused the two tasks. The introspection to image is given in terms of meaning rather than image, I conclude. The later reactions of this subject show that she has learned to distinguish perfectly between the two tasks, but still the image rises spontaneously with the perception of the printed word.

Subject 6.

| | | |
|---|---|---|
| 10/21/17 | Dagon | The meaning came first, then the image of the animal. I think the word resembles dragon, and this resemblance helped bring the image. |
| " " " | Martlet | The meaning, bird, came immediately. Then a little bird came as image. I knew this word before meeting it in the material. |
| " " " | Mace | The meaning, hammer or instrument for bringing people to order, came before the image. |
| " " " | Cresset | The word plume came, then the image of what looked like a feather. I could not tell whether it was a single feather or a bunch of feathers, so vague was the image. |

*Remark* of Subject 6: "The images do not come so readily as the meanings, and they are indistinct when they do come.

## IV. The Influence of the Task

With Subject 7, in whom the tendency to visualize is most marked, the attempt was made to discover what influence the task "meaning" or "image" had on the reaction time. This subject was given a special set of experiments in which she was continually asked to report which came first, image or meaning. Inspection of the tables gives (P. 515) very little difference in the results. With the task image, when *image* came first, the mean reaction time was 1117 $\sigma$; with task *image,* when mean-

ing came first, the mean reaction time was 1103 σ. When the task was *meaning,* and meaning came first, the average reaction time was 1093 σ; with image first, the average reaction time was 1025 σ. Considering the range of variation between the individual readings, it would not do to make much out of these differences. From these reaction times, we have no evidence that the task "meaning" tends to make the meaning come quicker or that with the task "image" the image tends to arise sooner because of the task.

We may also take into account the *number of times* that image or meaning seemed to come first with the two tasks. With the task *image,* image seemed to come first 50 times, meaning first, 33 times, a ratio of meaning to image of .66. With task *meaning,* image seemed to come 49 times, and meaning 33 times, a ratio of meaning to image of .67.

We thus fail to find with this subject any evidence that the task "react to meaning" or "react to imagery" has any tendency to make the process called for arise sooner than it might otherwise appear.

To seek further information on the influence of the task, the following three curves were plotted.

Figures 1 and 2 show two correlative branches—the dotted lines in each gives the percentage of times the image seemed to the subject to come prior to the meaning. The continuous lines indicate the percentage of times the meaning seemed to come first.

The data for the curves are taken from the table on page 515. The doubtful cases in column D of this table were distributed equally between the I and M columns in getting the percentages. When we compare these curves with figure 3 they seem at first sight to be wholly contradictory. Figure 3 shows two curves, a dotted one showing the average reaction time to image, and a continuous one showing the average reaction time to meaning. All along—no matter what seemed to the subject to appear first, the average reaction time to meaning was shorter than for imagery. If we compare points in the curves at corresponding dates it will be noticed that when the average difference in reaction time is small, image seems to the subject to come before the meaning

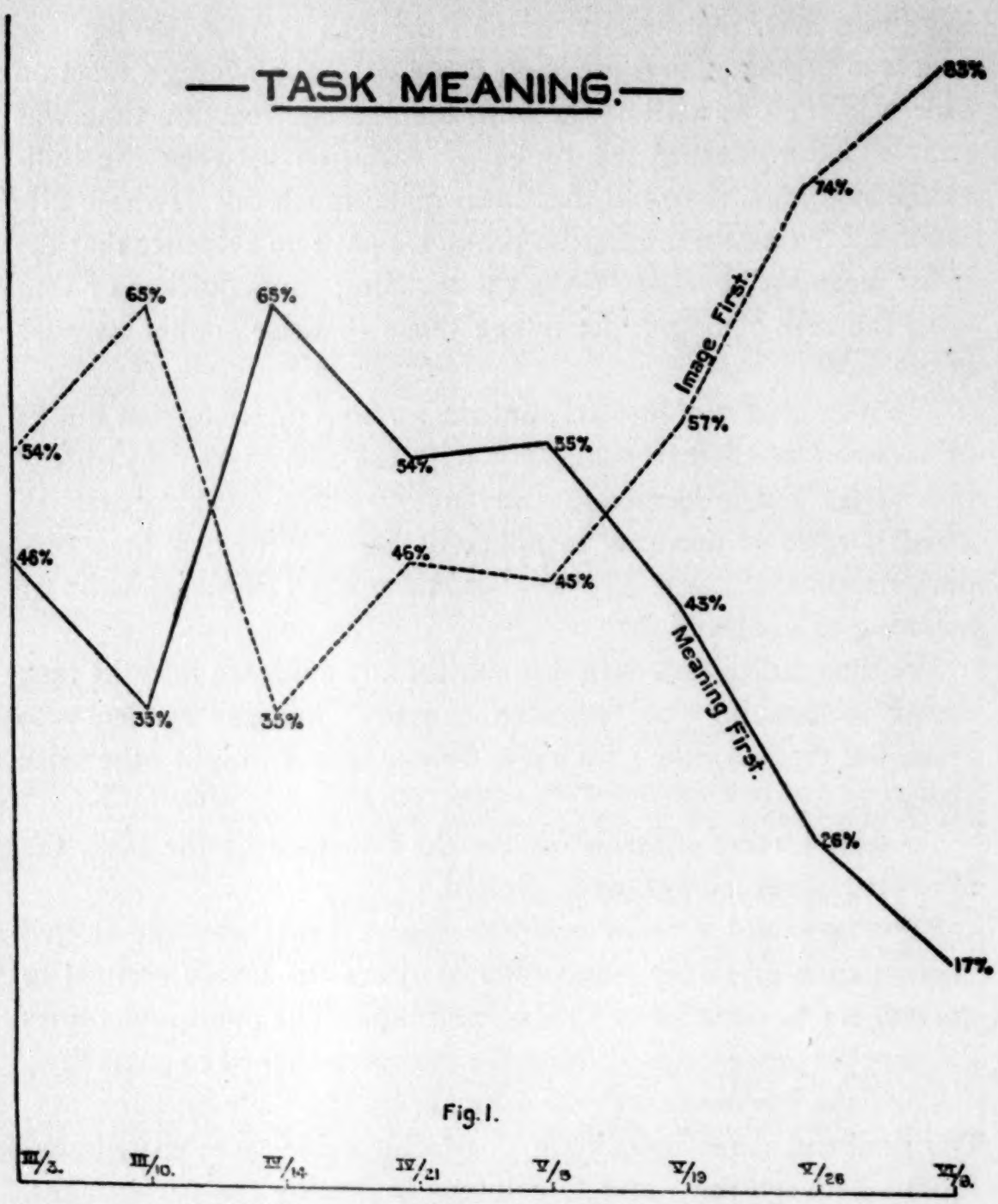


Fig. 1.

much oftener than the reverse. When, however, there is a considerable difference in the average reaction times, the two curves agree, i.e. the meaning seems to the subject to come prior to the imagery much more frequently and the average reaction time to meaning is much shorter.

This would indicate that the brilliancy of the image as compared with the more sombre and less noticeable meaning makes it appear in retrospection to have come prior to the meaning,

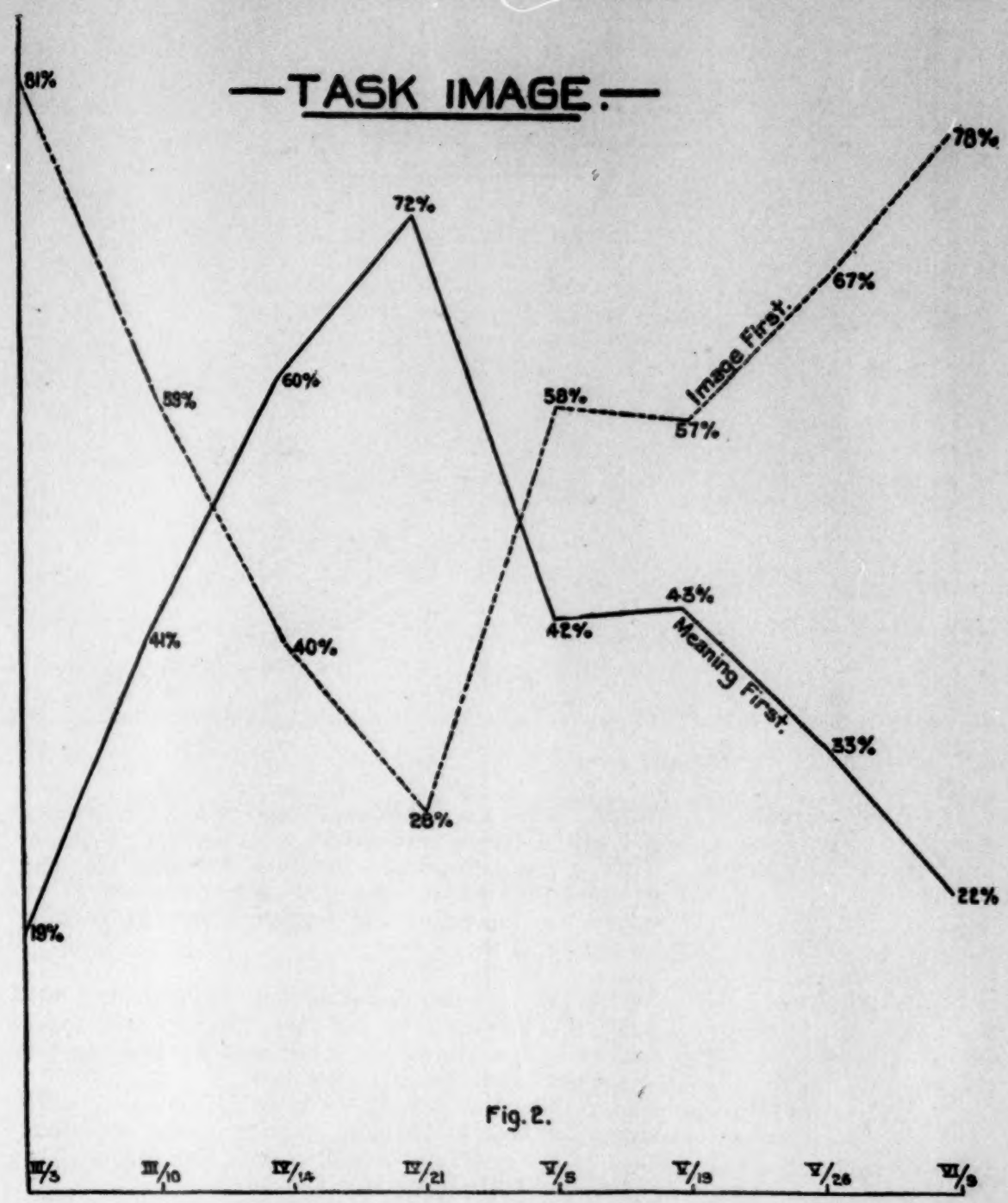


Fig. 2.

whenever the real difference between the two arrivals is slight. The curve indicates an illusion of priority in favor of the image when the average difference in the reaction-time falls below 100 sigma.

A supposed influence of the task was quite frequently noted by other subjects. This information was voluntary, some confessing the "inhibitory" influence of the task; others, realizing the possibility of reacting to either task.

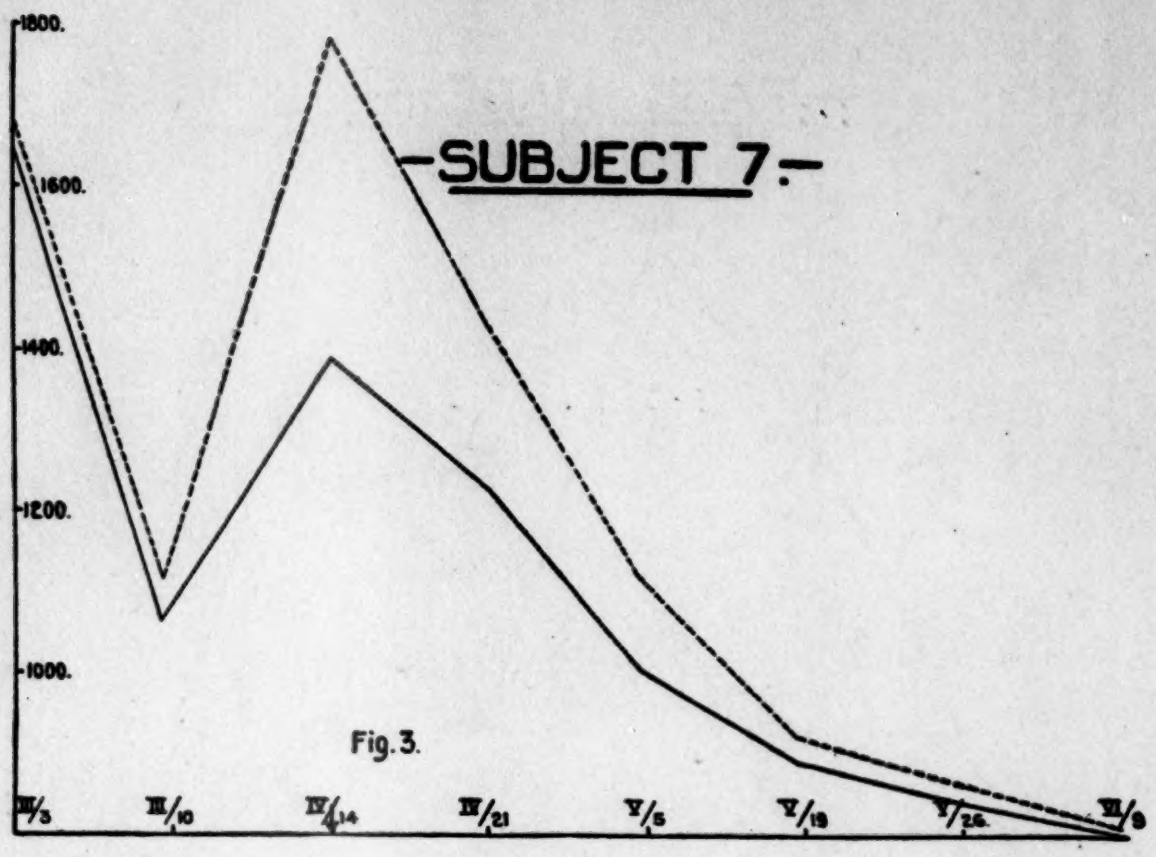


Fig. 3.

Subject 1.

| | | |
|---|---|---|
| 1/ 1/18 | Furcula | Wish bone. No image came, and when the image is not called for, I notice that none comes. |
| 1/17/18 | Xylophone | This is a musical instrument. I now find that it is possible to separate the two tasks, that is, to get either the image or the interpretation as required by the experimenter. |

Subject 3.

| | | |
|---|---|---|
| 10/21/17 | Brob | There came to me the image of the little tacks. I think the influence of the task makes itself apparent, as if the one or the other would come more or less quickly according to the task. |
| " " " | Ampyx | There came the meaning, vague and definite, which seemed unable to develop because of the consciousness of the task, and I had to seek the image. This I did, but with some effort. |
| " " " | Pavon | The task was in my mind from the very outset. The word was recognized as familiar, and I think its meaning was present, but rather subconsciously to the task, "Find an image." I reacted perhaps a little too soon to the image, the image coming really with the reaction rather than determining the reaction. |
| " " " | Dagon | The meaning, some kind of idol, came. The image was very vague. It seems to me that the task inhibits the appearance of the image, so that the image is much fainter than it would be had the task been *image*. |
| " " " | Parbuckle | The image was very faint, and because of the task, *image*, the meaning did not seem to develop. This I notice is a rather general phenomenon now. |

| | | |
|---|---|---|
| " " " | Peruke | This came first as a familiar word, but the meaning did not develop on account of the task *image*. I seemed to recognize a real conflict between the development of meaning and the purpose I had of seeking the image, which came in a fragmentary manner. |
| 1/13/18 | Winch | I had to wait for the image, which seemed to be quite a different process from waiting for the meaning. It seems that associations formed in learning will help in getting the meaning, but will not help so much in getting the image. If the image comes, it must simply be passively waited for. Here were such associations as "wrench, wench, windlass," accompanied by a consciousness that some of these were appropriate to the meaning and some were not. |
| " " " | Hypogeum | Again there was the passive waiting for the image, which turned my attention from any such thing as derivation, which in this word is very prominent. |

## V. Introduction of Definition

In the second set of experiments, conducted with three observers, the definitions of the words of the series were introduced after several trials. The 'old' interpretation persisted alongside the 'new' one, as well as feelings of amusement when interpretations differed radically. The learning of the definition draws attention to some *one element* in the printed picture. This is observed by Subject 5 in the reaction to Camail.

| | | |
|---|---|---|
| 2/3/18 | Camail | The picture came first of a man with a conical-shaped hat, and a chain of mail around his neck. Then the interpretation,—a mail protection for the neck, came. There seems to be little difference in time, but the picture may have come first. The interpretation was unformulated. I had to look for the word afterwards. The picture takes in the face and head, but I thought the name had to do with the neck part of it. At first I paid attention to the whole picture; after I learned the definition, I only noticed the neck gear. |
| Subject 1. | | |
| 1/13/18 | Limber | As soon as I saw the word I was conscious of a difference which has been caused by a study of definitions. The word instead of applying to whole objects applies only to parts. This is very misleading. The term evidently belongs to the shaft of a sulky instead of to the whole vehicle. This new study of definitions is inhibitory, I think. |

The new and old interpretations cause conflict when the definition brings out some meaning not conveyed by the printed picture. Several subjects note this.

Subject 1.

| | | |
|---|---|---|
| 1/13/18 | Furcula | This is a support for undermined walls. This is what I learned from the definition. I do not agree with it, for I cannot associate the picture with a wall on account of the shape of the drawing. The union of the two branches is near the base. This is also the union of the clavicle bones of a bird, (ornithological definition). I think it is just a wish bone. |
| " " " | Erminois | Shield, with ornamentations in rows on the front. There was also a consciousness that the definition contradicts the first impression I got of *material*. I thought the material was brass, but the definition makes me think otherwise, and the effect is contradictory. |
| " " " | Mether | At first it looked strange. I was conscious of a great difference between the use of the word as given in the dictionary and the use I had attributed to it from examining the picture. |
| " " " | Gablet | The image and the word came first. It is a small gable built on buttresses and screens of houses, especially in mediaeval architecture. I was conscious that the definition had changed my interpretation, a wayside shrine. |

Subject 5.

| | | |
|---|---|---|
| 1/13/18 | Modillion | A bracket used under the cornice of a Corinthian or Composite capital or pillar. I remembered also my old interpretation, a piece of molding. |
| " " " | Xylophone | The outline is trapezoidal-shaped, with vertical bars and the peg, (or as the definition says, the hammer) for striking the bars. The picture was a little misleading. The definition says those vertical bars are wooden. I thought they were of wire or catgut. |
| " " " | Nog | A wrench at the bottom of a pillar, or part of a bicycle. This is the old interpretation. A wooden pin; in ship carpentry, it is a——I forget: but there is something about a nail being driven into the shoe of something. The terms of the definition were obscure. |
| " " " | Winch | An instrument for winding, (old interpretation). A kind of hoisting apparatus by which a rope is wound around a cross bar by turning a crank at the side. The weight to be lifted is attached to the rope. I think a remembered comparison goes on between the old and new meanings, and a sort of complacent feeling exists when the two agree. |
| " " " | Camail | The image came first of chained-mail collar. This is the old and new interpretation. The old included 'conical-shaped hat.' Now there is the additional idea, tippet worn by Roman clergy,—tippet edged with fur, kind in accordance with the dignity of the wearer. |
| " " " | Parement | Image first, a military surcoat, mentioned in Chaucer and spelled parament. The old interpretation, swallow tail coat, came back, with the image of a man holding a spear. The reactions seem delayed by this new learning process. |

One subject especially seems hampered in reacting by the rising to consciousness of two interpretations. With her, there is al-

ways trailing somewhere in the background of consciousness the new ideas introduced by the study of definitions.

Subject 1.

| | | |
|---|---|---|
| 1/13/18 | Agonoderus | A small beetle. I have a consciousness that there is more written on the paper, and this bothers me. |
| " " " | Modillion | Two things came,—the impression I first had, molding, and the impression I received from studying the definition, a *carved bracket.* |
| " " " | Parement | A man standing with a gun in front of him. He has the stiff appearance of a person dressed in mail. Chaucer is mentioned in the definition. |
| " " " | Aftaba | I am conscious that there are two things now to be looked after. The definition, if long and couched in unfamiliar terms, seems to be quite a hindrance to reaction, even when the task is image. This is a sort of teapot, with handle and spout noticeable. With this came the impression that there is something in the definition that contradicts this. There it is spoken of as a water vessel used in India. |
| " " " | Camail | I distinctly saw the face with the hood around it, a hood made of chain mail. I knew that the expressions 'hood' and 'chain mail' were in the definition, and these words helped me to get the image. |

## VI. Exposition of Pictures

After February twenty-fourth, Subject 1 was shown pictures instead of words. Out of 117 words shown during several experiments, 5 brought 'word' first; with the remaining 112 words, an unformulated meaning was reported as the first thing in consciousness. This subject says, "Meaning always comes first when the pictures are exposed; then the English word follows, and finally the real name of the picture."

| | | |
|---|---|---|
| 3/ 3/18 | Modillion | The meaning came first. I could not formulate it though I knew what it was. Then came 'bracket' and finally 'modillion.' The words came as visual images; with the word 'bracket' there came the visual image of a real bracket, then the first syllable 'MOD' with a black line following, of about the real length of the word. |
| 5/19/18 | Gablet | The words used to come as visual images. Now they come without form. I am not conscious of anything except that I know the word that applies to the picture. |

With repeated practice, perhaps, the word designating the picture would displace what this observer calls the 'English' word. Whether that word would eventually precede unanalyzed meaning is a matter of conjecture, but it seems as if it would not. By

repetition and increased power of observance of what happens in consciousness, Subject 1 detects *meaning*, simple meaning, present immediately on the presentation of a picture. This same sequence (meaning image) is also observed when the printed word is shown.

When a stimulus word or picture is shown, the tendency is for the feeling of knowing to precede the image. This 'feeling of knowing' if formulated, would constitute the interpretation of the word or picture.

## VII. Conclusion

We may now ask ourselves the question: how do unknown words acquire meaning? We may say that the first stage is that in which the word acquires familiarity by being seen in a certain situation. In our experiments the word was associated with a picture, and this picture, involuntarily interpreted by the subject. The word thus became associated with this interpretation and the memory image of the drawing. In real life, the picture is often replaced by an object. The object, however, is not represented as a mere bundle of sensations,—but is interpretated by inquiring into its use, of what it is made, etc. Thus a word can not only recall a visual image of some object, but also a piece of knowledge not to be imagined but only known,—the concept of utility and relationship to other objects. Every other word, therefore, that comes to us originally as the name of an object has associated with it not only a visual image, but also a concept. The concept is more truly the meaning than the image, for the image without the concept has no meaning, whereas the concept without the image is meaning. And this in contradiction to the implied theory that meaning and image are but one and the same process.

Image and meaning are distinct processes, or mental structures, something quite different from mental functions. A mental function has for its end result a mental structure or a modification of a mental structure. It is a process, e.g., memory, perception, of which we are not conscious until through its agency the mental structure results. Functions are conscious only a) in

the voluntary effort by which they are initiated, and b) in their end results. In the endeavor to recall a person's name, one is *conscious* of the effort to remember, as well as of the verbal image which precedes the utterance of the name, but *unconscious* of the manner in which details come into the mind. Similarly, in visual perception, one is conscious of the *sensation,* but not conscious of what is going on in the eye and in the brain. The scientist, understanding clearly that the physical cause of sound is motion remains as unconscious of the way in which vibrations affect the auditory nerve and transmit the excitation thence to the brain as the amateur student of physics. "It is indisputable that there enters into the texture of our normal conscious existence a multitude of subconscious, or obscure mental processes so dim and indistinct as to be at best only very faintly realized."[3]

As opposed to these *unconscious* functions are the *structures,* or states of consciousness. Attention to a sensation may make that sensation, which is a structure, clearer, but attention does not for that reason become a structure. It simply modifies what is already in existence, viz., the sensation. Attention simply means the turning of the mind to a state of consciousness in existence at the moment.

The reception then of sensory stimuli; the conservation and elaboration of the same, involving in turn elements of attention, perception, memory, judgment, etc., constitute *functions* of mind. When the mind takes up the sensation as a sensation, or revives it as an image in the absence of a stimulus, or is aware of a meaning, we have to deal with *structures* of mind.

Through the data of the two experiments performed, we have found that a word has associated with itself two distinct things,—an image and a meaning. Psychologists do not refuse to term this image a structure, but *meaning* to some of them is but a function.

Over and above the image there is—quite as closely connected with the word—the interpretation. That which can be associated with something else is a structure, not a function. The word associated itself with *two* things, the image and the meaning.

[3] Maher, Michael, Psychology. London, 1915, p. 355.

Image is a structure. Then, likewise, the interpretation is a structure, for we cannot associate a function with a structure. We do not associate the word with an *unconscious* function. The meaning is as truly a structure as the image, nor is the image the meaning. If that were so, the image would always constitute the meaning, a result which does not follow from laboratory experiments.

The meaning then is not the image. How does meaning finally attach itself to what was once very definitely designated as 'unknown, unfamiliar'? Meaning comes through experience. When experience is lacking, the words or symbols are without signification. They are inanimate and will never be vivified until experience gives to them that character by which they awaken in the mind recognition and comprehension. By the aid of pictures an appeal can be made to past experience, and by foscusing the 'apperception mass' upon new subjects or situations, meaning may be put into these new experiences, thus giving them content. The application of past experience as an aid to the understanding of a present situation is the work of memory. Its function is perhaps clearest in the learning of a new language. The word in the vernacular has present meaning, but for a certain length of time the foreign word has significance only when it follows the revival of the familiar word with which it has been associated. After a period, it, too, acquires present meaning without the intervention or assistance of any word. From vague familiarity to clear knowledge is a transition, varying with the individual.

Sometimes the presence of the image contributes to the understanding of a word, inasmuch as it helps to fixate the attention. In the early stages of learning, especially in a case like the experiment in hand, where *meaning* is really given through the printed picture,—this tendency to appeal to the image for aid, is apparent. In later stages, however, the image seems unessential for comprehension; frequently, it is not present at all, or is subsequent to meaning. Even in the case of those whose imagery is prior to interpretation, there is no evidence that the meaning of the word is dependent on the visual or other image of the same. The function of the image seems auxiliary. As the learn-

ing process continues, a new form of mental activity springs up, independent of one image or a blend of images. This new appreciation of the word is the *meaning* of it, which may or may not be accompanied by imagery. It is an appreciation of the object as a whole, an appreciation often unanalyzed or not understood. A lingering on this unanalyzed interpretation causes images to arise.

Subject 5. Mether

> The recognition of the word came distinctly before the image, then the image of a cylindrical vessel, height a little greater than width, three feet or stands visible. I knew that I knew the meaning, but I did not wait to formulate it. I do not know how to analyze this consciousness of knowing, but I know the meaning. It is something of the same order as the recognition of the word as familiar. There seems to be a judgment in both cases, i.e., I would now describe my consciousness as a judgment, although I was not at the time conscious of judging.

The presence of unanalyzed or simple meaning is not so easily recognized by the unpractised observer. Frequently then the report of 'image' as the first thing in consciousness would more truly be given as subsequent to simple meaning were the observers trained to follow the development of the meaning of unfamiliar words. Minds accustomed to abstract thinking seem to grasp the import of a word, quite independently of any imagery vivid or obscure associated with the word.

What appears of far more importance than the image in the final assimilation of words to the vocabulary is the distribution of the new material to the categories of past experience, which "couple the perception of the object to the train of memory." The utility of the concept bears no comparison with the minor usefulness of the image in making the transition from unfamiliarity to familiarity in the learning of new words.

## VIII. APPENDIX

### Tables

In the following tables R. T. refers to the reaction time; M. V. to the mean variation; M. R. T. to the Mean Reaction time. Below the tables are given the control words used and the subject's reaction time thereto. The words "task fulfilled" and "task

unfulfilled" refer to the number of times the subject reacted in accordance with the task assigned—or said that he had not reacted in accordance with instructions. Thus when a subject said, "I did not react to the image but to the meaning" this reaction time was not recorded if his task were image.

SUBJECT 1

NOVEMBER 4, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Aquaemanale | .796 | + .076 | Acontium | 1.291 | + .656 |
| Brob | .850 | + .130 | Araba | .500 | — .135 |
| Jougs | .681 | — .039 | Besague | .859 | + .224 |
| Aplustre | .726 | + .006 | Chank | .599 | — .036 |
| Kago | 1.198 | + .478 | Hippogriff | .655 | + .020 |
| Sabbaton | .816 | + .096 | Peruke | ,626 | — .009 |
| Martlet | .472 | — .248 | Ampyx | .500 | — .135 |
| Koto | .974 | + .254 | Cresset | .400 | — .235 |
| Hubblebubble | .651 | — .069 | Dagon | .593 | — .042 |
| Argali | .552 | — .168 | Mace | 1.001 | + .366 |
| Heaume | .453 | — .267 | Mambrino | .480 | — .155 |
| Parbuckle | .476 | — .244 | Chela | .447 | — .188 |
| | | | Mino | .537 | — .098 |
| M.R.T. | .720 | .173 | Costrel | .410 | — .225 |
| | | | | .635 | .180 |
| Ramro | 1.133 | | | | |
| Blomso | .837 | | Task fulfilled | 14 | |
| | | | " un " | 1 | |
| M. R. T. | .985 | | | | |
| Task fulfilled | 12 | | | | |
| " un " | 2 | | | | |

NOVEMBER 10, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Acontium | .930 | + .230 | Sabbaton | .624 | — .003 |
| Mino | .437 | — .263 | Cresset | .534 | — .093 |
| Parbuckle | .518 | — .182 | Costrel | .541 | — .086 |
| Burin | .617 | — .083 | Peruke | .583 | — .044 |
| Hubblebubble | .614 | — .086 | Brob | .692 | + .065 |
| Pavon | .509 | — .191 | Mambrino | .571 | — .056 |
| Kago | .632 | — .068 | Chank | .676 | + .049 |
| Jougs | .558 | — .142 | Koto | .965 | + .338 |
| Hippogriff | .718 | + .018 | Ampyx | .581 | — .046 |
| Aplustre | 1.138 | + .438 | Mace | .579 | — .048 |
| Heaume | .509 | — .191 | Martlet | .638 | + .011 |
| Chela | .645 | — .055 | Dagon | .546 | — .081 |
| Besague | .881 | + 181 | M.R.T. | .627 | .077 |
| Corbel | .772 | + .072 | | | |
| Araba | .777 | + .077 | Lando | .928 | |
| Aquaemanale | .956 | + .256 | Brund | .974 | |
| M.R.T. | .700 | .158 | M.R.T. | .951 | |
| Task fulfilled | 16 | | Task fulfilled | 12 | |
| " un " | 0 | | " un " | 1 | |

NOVEMBER 17, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Mino | .866 | + .383 | Aquaemanale | .485 | — .043 |
| Chank | .491 | + .008 | Chela | .485 | — .043 |
| Peruke | .720 | + .237 | Parbuckle | .459 | — .069 |
| Ampyx | .530 | + .047 | Hubblebubble | .532 | + .004 |
| Mace | .418 | — .065 | Acontium | .482 | — .046 |
| Sabbaton | .546 | + .063 | Dagon | .389 | — .139 |
| Mambrino | .364 | — .119 | Martlet | .665 | + .137 |
| Pavon | .337 | — .146 | Kago | .545 | + .017 |
| Aplustre | .427 | — .056 | Corbel | .488 | — .040 |
| Heaume | .303 | — .180 | Cresset | .902 | + .374 |
| Hippogriff | .315 | — .168 | Burin | .548 | + .020 |
| | | | Besague | .520 | + .001 |
| M.R.T. | .483 | .134 | Brob | .529 | + .095 |
| | | | Araba | .623 | + .095 |
| Martin | .450 | | Argali | .411 | — .117 |
| Ratan | .335 | | Jougs | .390 | — .138 |
| | .392 | | M.R.T. | .528 | .086 |
| Task fulfilled | 11 | | Task fulfilled | 16 | |
| " un " | 1 | | " un " | 1 | |

DECEMBER 2, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Burin | .553 | + .083 | Kago | .261 | — .105 |
| Martlet | .440 | — .030 | Aplustre | .495 | + .129 |
| Pavon | .287 | — .183 | Parbuckle | .305 | — .061 |
| Mino | .519 | + .049 | Brob | .190 | — .176 |
| Argali | .283 | — .187 | Acontium | .295 | — .071 |
| Araba | .306 | — .164 | Besague | .250 | — .116 |
| Chela | .390 | — .080 | Heaume | .279 | — .087 |
| Dagon | .455 | — .015 | Aquaemanale | .302 | — .064 |
| Costrel | .388 | — .082 | Ampyx | .192 | — .174 |
| Peruke | .563 | + .093 | Koto | .594 | + .228 |
| Sabbaton | .417 | — .053 | Jougs | .541 | + .175 |
| Mambrino | .701 | + .231 | Chank | .459 | + .093 |
| Hippogriff | .580 | + .110 | Corbel | .407 | + .041 |
| Hubblebubble | .706 | + .236 | Cresset | .242 | — .124 |
| | | | Mace | .684 | + .318 |
| M.R.T. | .470 | .114 | | | |
| | | | M.R.T. | .366 | .131 |
| Trant | .482 | | | | |
| Hepes | .408 | | | | |
| M.R.T. | .445 | | | | |
| Task fulfilled | 14 | | Task fulfilled | 15 | |
| " un " | 0 | | " un " | 0 | |

DECEMBER 9, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Koto | 1.078 | + .681 | Costrel | .503 | + .025 |
| Argali | .271 | — .126 | Parbuckle | .812 | + .334 |
| Dagon | .234 | — .163 | Aquaemanale | .227 | — .251 |
| Burin | .256 | — .141 | Hubblebubble | .240 | — .238 |
| Kago | .265 | — .132 | Heaume | .628 | + .150 |
| Mino | .437 | + .040 | Chela | .728 | + .250 |
| Mambrino | .376 | — .021 | Peruke | .369 | — .109 |
| Araba | .382 | — .015 | Pavon | .359 | — .119 |
| Sabbaton | .370 | — .027 | Besague | .502 | + .024 |
| Cresset | .386 | — .011 | Ampyx | .330 | — .148 |
| Mace | .321 | — .076 | Chank | .297 | — .181 |
| | | | Brob | .520 | + .042 |
| M.R.T. | .397 | .130 | Acontium | .408 | — .070 |
| | | | Martlet | .808 | + .330 |
| Darma | .296 | | Jougs | .381 | — .097 |
| Bron | .564 | | Aplustre | .549 | + .071 |
| M.R.T. | .430 | | M.R.T. | .478 | .152 |
| Task fulfilled | 11 | | Task fulfilled | 16 | |
| " un " | 1 | | " un " | 1 | |

DECEMBER 16, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Araba | .653 | + .211 | Peruke | .310 | — .133 |
| Dagon | .261 | — .181 | Parbuckle | .451 | + .008 |
| Heaume | .337 | — .105 | Mambrino | .240 | — .203 |
| Brob | .213 | — .229 | Corbel | .288 | — .155 |
| Hippogriff | .258 | — .184 | Burin | .268 | — .175 |
| Costrel | .195 | — .247 | Kago | .297 | — .146 |
| Mace | .776 | + .334 | Mino | .316 | — .127 |
| Pavon | .215 | — .227 | Argali | .630 | + .187 |
| Besague | .580 | + .138 | Chank | .357 | — .086 |
| Cresset | .746 | + .304 | Acontium | .353 | — .090 |
| Jougs | .335 | — .107 | Aquaemanale | .658 | + .215 |
| Hubblebubble | .591 | + .149 | Chela | .749 | + .306 |
| Martlet | .633 | + .191 | Ampyx | .686 | + .243 |
| Sabbaton | .406 | — .036 | Koto | .600 | + .157 |
| M.R.T. | .442 | .189 | M.R.T. | .443 | .159 |
| Swarp | .681 | | Task fulfilled | 14 | |
| Bunst | .827 | | " un " | 0 | |
| M.R.T. | .754 | | | | |
| Task fulfilled | 14 | | | | |
| " un " | 1 | | | | |

DECEMBER 23, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Costrel | .606 | + .058 | | | |
| Mino | .645 | + .097 | Hippogriff | .620 | + .012 |
| Aplustre | .417 | — .131 | Jougs | .493 | — .115 |
| Chela | .397 | — .151 | Koto | .519 | — .089 |
| Peruke | .513 | — .035 | Martlet | .656 | + .048 |
| Argali | .545 | — .003 | Parbuckle | .637 | + .029 |
| Besague | .644 | + .096 | Burin | .696 | + .088 |
| Acontium | .405 | — .143 | Mambrino | .653 | + .045 |
| Araba | .623 | + .075 | Dagon | .409 | — .199 |
| Sabbaton | .683 | + .135 | Chank | .676 | + .068 |
| Kago | .599 | + .051 | Aquaemanale | .587 | — .021 |
| Mace | .534 | — .014 | Pavon | .640 | + .032 |
| Corbel | .554 | + .006 | Brob | .502 | — .106 |
| Ampyx | .524 | — .024 | Heaume | .748 | + .140 |
| Hubblebubble | .540 | — .008 | Cresset | .679 | + .071 |
| M.R.T. | .548 | .068 | M.R.T. | .608 | .076 |
| Swarp | .562 | | | | |
| Bunst | .587 | | | | |
| M.R.T. | .574 | | | | |
| Task fulfilled | 15 | | Task fulfilled | 14 | |
| " un " | 0 | | " un " | 0 | |

SUBJECT 1—SECOND SERIES

DECEMBER 23, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Pantiles | .670 | — .489 | Erminois | .906 | — .153 |
| Maravedi | .686 | — .473 | Epi | .733 | — .326 |
| Aftaba | .782 | — .377 | Agonoderus | 1.225 | + .166 |
| Warkamoowee | 2.541 | +1.382 | Biberon | .833 | — .226 |
| Modillion | .777 | — .382 | Mether | .955 | — .104 |
| Theseum | 1.287 | + .128 | Parement | 1796 | + .737 |
| Trousse | .859 | — .300 | Zylophone | 1.142 | + .083 |
| Lorcha | .957 | — .202 | Gablet | .907 | — .152 |
| Winch | 1.770 | + .611 | Francisca | 1.038 | — .021 |
| Acrostolium | 1.120 | — .039 | | | |
| Ophicleide | 1.325 | + .166 | M.R.T. | 1.059 | .218 |
| Limber | 1.233 | + .074 | | | |
| Hooka | 1.066 | — .093 | | | |
| M.R.T. | 1.159 | .363 | | | |
| Perlam | 5.758 | | | | |
| Kliksa | 1.047 | | | | |
| M.R.T. | 3.402 | | | | |
| Task fulfilled | 13 | | Task fulfilled | 9 | |
| " un " | 2 | | " un " | 2 | |

DECEMBER 24, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Acrostolium | 1.686 | + .594 | Epi | .731 | — .148 |
| Winch | .696 | — .396 | Biberon | .858 | — .021 |
| Nog | .527 | — .565 | Xylophone | .683 | — .096 |
| Warkamoowee | 1.006 | — .086 | Trousse | .905 | + .026 |
| Theseum | .534 | — .558 | Hooka | 1.264 | + .385 |
| Hypogeum (D) | 1.297 | + .190 | Pantiles | .977 | + .098 |
| Francisca | .830 | — .262 | Ophicleide | .854 | — .025 |
| Agonoderus | 1.355 | + .263 | Erminois | .760 | — .119 |
| Lorcha | .785 | — .307 | | | |
| Furcula | .920 | — .172 | M.R.T. | .879 | .115 |
| Aftaba | 1.304 | + .212 | | | |
| Parement | 1.078 | — .014 | | | |
| Camail | 1.609 | + .517 | | | |
| Limber | 1.873 | + .781 | | | |
| M.R.T. | 1.107 | .351 | | | |
| *D* excluded | 1.092 | | | | |
| Wamps | .675 | | | | |
| Mepsol | .867 | | | | |
| M.R.T. | .771 | | | | |
| Task fulfilled | 14 | | Task fulfilled | 8 | |
| " un " | 1 | | " un " | 4 | |

DECEMBER 28, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Emplectum | .886 | + .108 | Mether | 1.369 | + .652 |
| Ophicleide | .659 | — .119 | Furcula | .634 | — .083 |
| Erminois | .707 | — .071 | Epi | .541 | — .176 |
| Modillion | .603 | — .175 | Limber | .577 | — .140 |
| Maravedi | .976 | + .198 | Biberon | .671 | — .046 |
| Aftaba | .678 | — .100 | Xylophone | .603 | — .114 |
| Parement | .762 | — .016 | Hooka | .906 | + .189 |
| Camail | .562 | — .216 | Pantiles | .727 | + .010 |
| Agonoderus | .893 | + .115 | Gablet | .609 | — .108 |
| Lorcha | .676 | — .102 | Nog | .639 | — .078 |
| Francisca | .771 | — .007 | Trousse | .738 | + .021 |
| Hypogeum | 1.368 | + .590 | Winch | .596 | — .121 |
| Theseum | .829 | + .051 | | | |
| Warkamoowee | .645 | — .133 | M.R.T. | .717 | .145 |
| Acrostolium | .656 | — .122 | | | |
| M.R.T. | .778 | .141 | Zarzo | .936 | |
| | | | Mepsol | .918 | |
| | | | M.R.T. | .927 | |
| Task fulfilled | 15 | | Task fulfilled | 12 | |
| " un " | 0 | | " un " | 0 | |

JANUARY 1, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Furcula | .785 | — .038 | Emplectum | .922 | — .022 |
| Epi | .715 | — .108 | Ophicleide | .765 | — .179 |
| Limber | .710 | — .113 | Erminois | 1.630 | + .686 |
| Biberon | .997 | + .174 | Modillion | .915 | — .029 |
| Xylophone | .914 | + .091 | Maravedi | .877 | — .067 |
| Pantiles | .889 | + .066 | Aftaba | .904 | — .040 |
| Nog | .730 | — .093 | Parement | 1.053 | + .109 |
| Trousse | .810 | — .013 | Camail | .785 | — .159 |
| Winch | .858 | + .035 | Agonoderus | .862 | — .082 |
| | | | Lorcha | .901 | — .043 |
| M.R.T. | .823 | .081 | Francisca | .879 | — .065 |
| | | | Theseum | .903 | — .041 |
| Granz | .978 | | Warkamoowee | .882 | — .062 |
| Burl | .716 | | | | |
| | | | M.R.T. | .994 | .122 |
| M.R.T. | .847 | | | | |
| Task fulfilled | 9 | | Task fulfilled | 13 | |
| " un " | 4 | | " un " | 1 | |

JANUARY 1, 1918

(Second reading: words in reverse order)

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Emplectum | 1.411 | + .712 | Mether | .800 | + .176 |
| Ophicleide | .647 | — .052 | Furcula | .506 | — .118 |
| Erminois | .619 | — .080 | Epi | .529 | — .095 |
| Modillion | .592 | — .107 | Limber | .652 | + .028 |
| Maravedi | .810 | + .111 | Biberon | 631 | + .007 |
| Aftaba | .680 | — .019 | Xylophone | .728 | + .104 |
| Parement | .580 | — .119 | Hooka | .481 | — .143 |
| Camail | .579 | — .120 | Pantiles | .593 | — .031 |
| Agonoderus | .680 | — .019 | Gablet | .807 | + .183 |
| Lorcha | .723 | + .024 | Nog | .583 | — .041 |
| Francisca | .534 | — .165 | Trousse | .525 | — .099 |
| Hypogeum | .639 | — .060 | Winch | .567 | — .057 |
| Theseum | .605 | — .094 | Acrostolium | .710 | + .086 |
| Warkamoowee | .700 | + .001 | | | |
| | | | M.R.T. | .624 | .089 |
| M.R.T. | .699 | .120 | | | |
| Traft | .784 | | | | |
| Zarzo | .703 | | | | |
| M.R.T. | .743 | | | | |
| Task fulfilled | 14 | | Task fulfilled | 13 | |
| " un " | 0 | | " un " | 0 | |

JANUARY 6, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Francisca | 1.249 | + .383 | Erminois | 1.354 | + .450 |
| Ophicleide | 1.697 | + .831 | Lorcha | 1.713 | + .809 |
| Aftaba | .841 | — .025 | Agonoderus | .576 | — .328 |
| Mether | 1.064 | + .198 | Hooka | .271 | — .633 |
| Epi | .755 | — .111 | Pantiles | .895 | — .009 |
| Furcula | .581 | — .285 | Nog | .779 | — .125 |
| Biberon | .958 | + .092 | Limber | 1.034 | + .130 |
| Parement | .327 | — .539 | Emplectum | 1.012 | + .108 |
| Modillion | .721 | — .145 | Camail | 1.200 | + .296 |
| Theseum | .757 | — .109 | Maravedi | .678 | — .226 |
| Trousse | .674 | — .192 | Warkamoowee | .723 | — .181 |
| Xylophone | .775 | — .091 | Hypogeum | .768 | — .136 |
| | | | Winch | .749 | — .155 |
| M.R.T. | .866 | .250 | Gablet | .914 | + .010 |
| | | | | | |
| Darma | .902 | | M.R.T. | .904 | .257 |
| Traft | .823 | | | | |
| | | | | | |
| M.R.T. | .862 | | | | |
| Task fulfilled | 12 | | Task fulfilled | 14 | |
| " un " | 1 | | " un " | 0 | |

JANUARY 13, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Maravedi | .666 | — .230 | Emplectum | .507 | — .243 |
| Hypogeum | 1.303 | + .407 | Lorcha | .577 | — .173 |
| Winch | .881 | — .015 | Epi | .650 | — .100 |
| Nog | .937 | + .041 | Hooka | .693 | — .057 |
| Pantiles | .647 | — .249 | Agonoderus | .673 | — .077 |
| Biberon | .731 | — .165 | Furcula | .930 | + .180 |
| Gablet | .732 | — .164 | Parement | .894 | + .144 |
| Mether | 1.615 | + .719 | Aftaba | .795 | + .045 |
| Limber | .935 | + .039 | Camail | .580 | — .170 |
| Theseum | .760 | — .136 | Acrostolium | .721 | — .029 |
| Modillion | .978 | + .082 | Erminois | .873 | + .123 |
| Warkamoowee | .776 | — .120 | Xylophone | .730 | — .020 |
| Trousse | .694 | — .202 | Ophicleide | 1.095 | + .345 |
| | | | Francisca | .782 | + .032 |
| M.R.T. | .896 | .197 | | | |
| | | | M.R.T. | . 750 | .124 |
| Taskat | .732 | | | | |
| Nicks | .928 | | | | |
| | | | | | |
| M.R.T. | .830 | | | | |
| Task fulfilled | 13 | | Task fulfilled | 14 | |
| " un " | 0 | | " un " | 0 | |

JANUARY 17, 1918

| MEANING | R.T. | M.V. |
|---|---|---|
| Nog | .713 | — .092 |
| Parement | .971 | + .166 |
| Biberon | .735 | — .070 |
| Camail | .716 | — .089 |
| Limber | .777 | — .028 |
| Xylophone | .690 | — .155 |
| Agonoderus | .762 | — .043 |
| Maravedi | .944 | + .139 |
| Erminois | .882 | + .077 |
| Hooka | .604 | — .201 |
| Emplectum | 1.065 | + .260 |
| Lorcha | .885 | + .080 |
| Warkomoowee | .847 | + .042 |
| Modillion | .688 | — .117 |
| M.R.T. | .805 | .111 |
| Task fulfilled | 14 | |
| " un " | 0 | |

| IMAGE | R.T. | M.V. |
|---|---|---|
| Pantiles | .654 | — .199 |
| Furcula | .753 | — .020 |
| Aftaba | .650 | — .123 |
| Mether | 1.213 | + .440 |
| Gablet | .632 | — .141 |
| Winch | .803 | + .030 |
| Epi | .748 | — .025 |
| Theseum | .711 | — .062 |
| Acrostolium | .675 | — .098 |
| Ophicleide | .636 | — .137 |
| Trousse | .755 | — .018 |
| Francisca | .963 | + .190 |
| Hypogeum | .858 | + .085 |
| M.R.T. | .773 | .122 |
| Taskat | .827 | |
| Traft | .756 | |
| M.R.T. | .791 | |
| Task fulfilled | 13 | |
| " un " | 0 | |

JANUARY 20, 1918

| MEANING | R.T. | M.V. |
|---|---|---|
| Pantiles | .657 | + .023 |
| Furcula | .538 | — .086 |
| Aftaba | .648 | + .014 |
| Mether | .986 | + .352 |
| Gablet | .408 | — .226 |
| Ophicleide | .655 | + .021 |
| Trousse | .749 | + .115 |
| Francisca | .670 | + .036 |
| Hypogeum | .744 | + .110 |
| Winch | .563 | — .071 |
| Epi | .451 | — .183 |
| Acrostolium | .557 | — .077 |
| Theseum | .611 | — .023 |
| Modillion | .646 | + .012 |
| M.R.T. | .634 | .096 |
| Butan | .333 | |
| Trep | .586 | |
| M.R.T. | .459 | |
| Task fulfilled | 14 | |
| " un " | 0 | |

| IMAGE | R.T. | M.V. |
|---|---|---|
| Nog | .286 | — .286 |
| Parement | .985 | + .413 |
| Biberon | .678 | + .106 |
| Camail | .395 | — .177 |
| Limber | .405 | — .167 |
| Xylophone | .490 | — .082 |
| Hooka | .559 | — .013 |
| Lorcha | .664 | + .092 |
| Emplectum | .680 | + .108 |
| Agonoderus | .570 | — .002 |
| Maravedi | .750 | + .178 |
| Erminois | .409 | — .163 |
| Warkamoowee | .564 | — .008 |
| M.R.T. | .572 | .138 |
| Task fulfilled | 13 | |
| " un " | 0 | |

JANUARY 27, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Nog | .536 | + .018 | Pantiles | .540 | + .061 |
| Parement | .487 | — .031 | Furcula | .437 | — .042 |
| Biberon | .671 | + .153 | Aftaba | .404 | — .075 |
| Camail | .574 | + .056 | Mether | .571 | + .092 |
| Limber | .453 | — .065 | Gablet | .487 | + .008 |
| Xylophone | .516 | — .002 | Ophicleide | .512 | + .033 |
| Agonoderus | .399 | — .119 | Trousse | .272 | — .207 |
| Maravedi | .498 | — .020 | Francisca | .503 | + .024 |
| Erminois | .531 | + .013 | Hypogeum | .540 | + .061 |
| Hooka | .433 | — .085 | Winch | .451 | — .028 |
| Emplectum | .525 | + .007 | Epi | .342 | — .137 |
| Acrostolium | .641 | + .123 | Lorcha | .566 | + .087 |
| Modillion | .470 | — .048 | Warkamoowee | .516 | + .037 |
| | | | Theseum | .573 | + .094 |
| M.R.T. | .518 | .057 | | | |
| | | | M.R.T. | .479 | .070 |
| Edtom | .632 | | | | |
| Marix | .647 | | | | |
| M.R.T. | .639 | | | | |
| Task fulfilled | 13 | | Task fulfilled | 14 | |
| " un " | 0 | | " un " | 0 | |

FEBRUARY 24, 1918

| MEANING | R.T. | M.V. | WORD | R.T. | M.V. |
|---|---|---|---|---|---|
| Hypogeum | .480 | — .281 | Agonoderus | .664 | — .242 |
| Francisca | .611 | — .150 | Furcula | .681 | — .225 |
| Camail | .672 | — .089 | Lorcha | .570 | — .336 |
| Epi | .820 | + .059 | Biberon | .984 | + .078 |
| Ophicleide | .842 | + .081 | Mether | .871 | — .035 |
| Aftaba | .731 | — .030 | Pantiles | .894 | — .012 |
| Emplectum | .920 | + .159 | Erminois | 1.278 | + .372 |
| Limber | .843 | + .082 | Maravedi | 1.183 | + .277 |
| Xylophone | .868 | + .107 | Acrostolium | .930 | + .024 |
| Gablet | .832 | + .071 | Trousse | 1.005 | + .099 |
| M.R.T. | .761 | .111 | M.R.T. | .906 | .170 |
| Task fulfilled | 10 | | Task fulfilled | 10 | |
| " un " | 0 | | " un " | 4 | |

MARCH 3, 1918

| MEANING | R.T. | M.V. | WORD | R.T. | M.V. |
|---|---|---|---|---|---|
| Francisca | .491 | — .085 | Epi | .652 | + .058 |
| Acrostolium | .929 | + .353 | Gablet | .683 | + .089 |
| Furcula | .707 | + .131 | Mether | .845 | + .251 |
| Nog | .578 | + .002 | Ophicleide | .692 | + .098 |
| Parement | .553 | — .023 | Camail | .510 | — .084 |
| Biberon | .354 | — .222 | Agonoderus | .386 | — .208 |
| Pantiles | .569 | — .007 | Hypogeum | .622 | + .028 |
| Erminois | .465 | — .111 | Emplectum | .545 | — .049 |
| Theseum | .658 | + .082 | Warkamoowee | .412 | — .182 |
| Lorcha | .507 | — .069 | Limber | .664 | + .070 |
| Aftaba | .571 | — .005 | Trousse | .443 | — .151 |
| Hooka | .644 | + .068 | Modillion | .719 | + .125 |
| Xylophone | .464 | — .112 | Winch | .548 | — .046 |
| M.R.T. | .576 | .098 | M.R.T. | .594 | .111 |
| Task fulfilled | 13 | | Task fulfilled | 13 | |
| " un " | | | " un " | 1 | |

MARCH 10, 1918

| MEANING | R.T. | M.V. | WORD | R.T. | M.V. |
|---|---|---|---|---|---|
| Erminois | .661 | + .209 | Maravedi | .460 | — .063 |
| Emplectum | .507 | + .055 | Theseum | .541 | + .018 |
| Hypogeum | .583 | + .131 | Ophicleide | .643 | + .120 |
| Furcula | .462 | + .010 | Gablet | .460 | — .063 |
| Parement | .527 | + .075 | Acrostolium | .590 | + .067 |
| Biberon | .603 | + .151 | Hooka | .543 | + .020 |
| Xylophone | .458 | + .006 | Winch | .443 | — .080 |
| Warkamoowee | .294 | — .158 | Camail | .553 | + .030 |
| Mether | .294 | — .158 | Pantiles | .599 | + .076 |
| Limber | .452 | .0 | Lorcha | .342 | — .181 |
| Nog | .389 | — .063 | Epi | .646 | + .123 |
| Modillion | .308 | — .144 | Aftaba | .385 | — .138 |
| Trousse | .346 | — .106 | Agonoderus | .604 | + .081 |
| M.R.T. | .452 | .097 | M.R.T. | .523 | .081 |
| Task fulfilled | 13 | | Task fulfilled | 13 | |
| " un " | 0 | | " un " | 1 | |

MARCH 17, 1918

| MEANING | R.T. | M.V. | WORD | R.T. | M.V. |
|---|---|---|---|---|---|
| Parement | .410 | — .005 | Theseum | .387 | — .168 |
| Maravedi | .574 | + .159 | Ophicleide | .620 | + .065 |
| Furcula | .235 | — .180 | Erminois | .604 | + .049 |
| Winch | .302 | — .113 | Hypogeum | .605 | + .050 |
| Biberon | .331 | — .084 | Gablet | .635 | + .080 |
| Pantiles | .517 | + .102 | Acrostolium | .493 | — .062 |
| Lorcha | .643 | + .228 | Camail | .566 | + .011 |
| Mether | .431 | + .016 | Warkamoowee | .571 | + .016 |
| Nog | .284 | — .131 | Francisca | .526 | — .029 |
| Agonoderus | .423 | + .008 | Xylophone | .606 | + .051 |
| Trousse | .418 | + .003 | Hooka | .599 | + .044 |
| | | | Limber | .600 | + .045 |
| M.R.T. | .415 | .093 | Epi | .400 | — .155 |
| | | | Modillion | .567 | + .012 |
| | | | M.R.T. | .555 | .059 |
| Task fulfilled | 11 | | Task fulfilled | 14 | |
| " un " | 0 | | " un " | 0 | |

APRIL 14, 1918

| MEANING | R.T. | M.V. | WORD | R.T. | M.V. |
|---|---|---|---|---|---|
| Gablet | .374 | — .214 | Francisca | .677 | + .131 |
| Theseum | .402 | — .186 | Winch | .541 | — .005 |
| Ophicleide | .516 | — .072 | Acrostolium | .439 | — .116 |
| Nog | .545 | — .043 | Maravedi | .320 | — .226 |
| Mether | .459 | — .129 | Erminois | .412 | — .134 |
| Lorcha | .644 | + .056 | Parement | .305 | — .241 |
| Warkamoowee | .540 | — .048 | Limber | .610 | + .064 |
| Pantiles | .603 | + .015 | Hooka | .890 | + .344 |
| Camail | .895 | + .307 | Emplectum | .306 | — .240 |
| Biberon | .625 | + .037 | Xylophone | .942 | + .396 |
| Agonoderus | .860 | + .272 | Aftaba | .581 | + .035 |
| Furcula | .598 | + .010 | | | |
| M.R.T. | .588 | .116 | M.R.T. | .546 | .176 |
| Task fulfilled | 12 | | Task fulfilled | 11 | |
| " un " | 1 | | " un " | 1 | |

APRIL 21, 1918

| MEANING | R.T. | M.V. | WORD | R.T. | M.V. |
|---|---|---|---|---|---|
| Furcula | .414 | — .020 | Agonoderus | .439 | — .011 |
| Mether | .416 | — .018 | Xylophone | .554 | + .104 |
| Epi | .309 | — .125 | Trousse | .444 | — .006 |
| Limber | .444 | + .010 | Hypogeum | .574 | + .124 |
| Lorcha | .519 | + .085 | Emplectum | .523 | + .073 |
| Biberon | .364 | — .070 | Pantiles | .344 | — .106 |
| Aftaba | .400 | — .034 | Francisca | .334 | — .116 |
| Hooka | .473 | + .039 | Acrostolium | .376 | — .074 |
| Erminois | .618 | + .184 | Winch | .465 | + .015 |
| Parement | .390 | — .044 | | | |
| M.R.T. | .434 | .063 | M.R.T. | .450 | .069 |
| Task fulfilled | 10 | | Task fulfilled | 9 | |
| " un " | 2 | | " un " | 1 | |

MAY 5, 1918

| MEANING | R.T. | M.V. | WORD | R.T. | M.V. |
|---|---|---|---|---|---|
| Mether | .442 | — .044 | Modillion | .299 | — .153 |
| Warkamoowee | .380 | — .106 | Nog | .384 | — .068 |
| Hypogeum | .432 | — .054 | Trousse | .255 | — .197 |
| Limber | .500 | + .014 | Ophicleide | .291 | — .161 |
| Epi | .399 | — .087 | Gablet | .305 | — .147 |
| Theseum | .348 | — .138 | Maravedi | .580 | + .128 |
| Furcula | .692 | + .206 | Xylophone | .423 | — .029 |
| Lorcha | .629 | + .143 | Pantiles | .724 | + .272 |
| Emplectum | .383 | — .103 | Biberon | .490 | + .038 |
| Hooka | .495 | + .009 | Acrostolium | .532 | + .080 |
| Francisca | .438 | — .048 | Parement | .416 | — .036 |
| Winch | .563 | + .077 | Camail | .722 | + .270 |
| Aftaba | .520 | + .034 | | | |
| Erminois | .593 | + .107 | M.R.T. | .452 | .131 |
| M.R.T. | .486 | .084 | | | |
| Task fulfilled | 14 | | Task fulfilled | 12 | |
| " un " | 0 | | " un " | 0 | |

MAY 19, 1918

| MEANING | R.T. | M.V. | WORD | R.T. | M.V. |
|---|---|---|---|---|---|
| Epi | .348 | — .223 | Theseum | .530 | — .062 |
| Lorcha | .407 | — .164 | Warkamoowee | .612 | + .020 |
| Agonoderus | .495 | — .076 | Modillion | .500 | — .092 |
| Maravedi | .740 | + .169 | Xylophone | .646 | + .054 |
| Hypogeum | .612 | + .041 | Ophicleide | .544 | — .048 |
| Trousse | .508 | — .063 | Limber | .628 | + .036 |
| Camail | .483 | — .088 | Francisca | .668 | + .076 |
| Nog | .600 | + .029 | Mether | .466 | — .126 |
| Erminois | .638 | + .067 | Furcula | .655 | + .063 |
| Gablet | .622 | + .051 | Aftaba | .571 | — .021 |
| Winch | .677 | + .106 | Emplectum | .732 | + .140 |
| Parement | .713 | + .142 | Hooka | .559 | — .033 |
| Acrostolium | .587 | + .016 | | | |
| M.R.T. | .571 | .095 | M.R.T. | .592 | .064 |
| Task fulfilled | 13 | | Task fulfilled | 12 | |
| " un " | 0 | | " un " | 0 | |

## SUBJECT 2

### SEPTEMBER 18, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Ampyx | 2.382 | + .893 | Chela | .748 | — .878 |
| Mambrino | 1.408 | — .081 | Pavon | 2.766 | +1.140 |
| Koto | 1.488 | — .001 | Aplustre | 1.564 | — .062 |
| Parbuckle | 2.595 | +1.106 | Argali | 2.002 | + .376 |
| Araba | 1.509 | + .020 | Brob | 1.698 | + .072 |
| Jougs | 1.700 | + .211 | Mino | 1.371 | — .255 |
| Hippogriff | 1.324 | — .165 | Sabbaton | 1.237 | — .389 |
| Hubblebubble | .899 | — .590 | | | |
| Dagon | .580 | — .909 | M.R.T. | 1.626 | .453 |
| Martlet | 1.280 | — .209 | | | |
| Peruke | 1.007 | — .482 | Task fulfilled | 7 | |
| Burin | 1.083 | — .406 | " un " | 5 | |
| Mace | .773 | — .716 | | | |
| Chank | 2.828 | +1.339 | | | |
| M.R.T. | 1.489 | .509 | | | |
| Krand | 5.032 | | | | |
| Merton | 5.580 | | | | |
| Rahman | 1.891 | | | | |
| M.R.T. | 4.167 | | | | |
| Task fulfilled | 14 | | | | |
| " un " | 1 | | | | |

### NOVEMBER 11, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Dagon | 1.329 | — .385 | Koto | 1.733 | — .135 |
| Martlet | .940 | — .774 | Mino | 1.431 | — .437 |
| Mace | 2.817 | +1.103 | Burin | 1.148 | — .720 |
| Ampyx | 1.722 | + .008 | Cresset | 1.764 | — .104 |
| Hubblebubble | 2.164 | + .450 | Brob | 2.332 | + .464 |
| Peruke | 1.869 | + .155 | Pavon | 2.416 | + .548 |
| Sabbaton | 1.861 | + .147 | Araba | 2.941 | +1.073 |
| Jougs | 1.388 | — .326 | Heaume | 1.827 | — .041 |
| Hippogriff | 1.451 | — .263 | Chela | 1.499 | — .369 |
| Aplustre | 1.971 | + .257 | Aquaemanale | 1.589 | — .279 |
| Argali | 1.346 | — .368 | | | |
| M.R.T. | 1.714 | .385 | M.R.T. | 1.868 | .417 |
| Brund | 2.232 | | | | |
| Lando | 2.795 | | | | |
| M.R.T. | 2.513 | | | | |
| Task fulfilled | 11 | | Task fulfilled | 10 | |
| " un " | 3 | | " un " | 5 | |

NOVEMBER 17, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Araba | 1.766 | + .473 | Chank | 1.680 | + .332 |
| Argali | 1.034 | — .259 | Besague | 2.083 | + .735 |
| Pavon | 1.325 | + .032 | Aquaemanale | 1.153 | — .195 |
| Aplustre | 1.395 | + .102 | Heaume | 1.287 | — .061 |
| Jougs | 1.022 | — .271 | Kago | 1.624 | + .276 |
| Hippogriff | .828 | — .465 | Ampyx | 1.207 | — .141 |
| Dagon | .917 | — .376 | Parbuckle | 1.134 | — .214 |
| Chela | 1.605 | + .312 | Sabbaton | 1.360 | + .012 |
| Mace | 1.783 | + .490 | Hubblebubble | .976 | — .372 |
| Martlet | 1.004 | — .289 | Peruke | .982 | — .366 |
| Koto | 1.172 | — .121 | | | |
| Burin | .695 | — .598 | M.R.T. | 1.348 | .270 |
| Cresset | 1.643 | + .350 | | | |
| Corbel | 1.483 | + .190 | Ratan | 1.506 | |
| Brob | 1.071 | — .222 | Martin | 2.084 | |
| Mambrino | 1.952 | + .659 | | | |
| | | | M.R.T. | 1.795 | |
| M.R.T. | 1.293 | .325 | | | |
| Task fulfilled | 16 | | Task fulfilled | 10 | |
| " un " | 2 | | " un " | 1 | |

DECEMBER 22, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Pavon | 1.267 | + .199 | Kago | 1.030 | — .027 |
| Chank | 1.221 | + .153 | Heaume | .830 | — .227 |
| Martlet | .823 | — .245 | Corbel | 1.208 | + .151 |
| Burin | 1.028 | — .040 | Aquaemanale | 1.086 | + .029 |
| Jougs | .865 | — .203 | Brob | 1.034 | — .023 |
| Hippogriff | .805 | — .263 | Mace | 1.017 | — .040 |
| Besague | 1.116 | + .048 | Costrel | 1.153 | + .096 |
| Dagon | .900 | — .168 | Sabbaton | .886 | — .171 |
| Mambrino | 1.199 | + .131 | Argali | 1.107 | + .050 |
| Peruke | 1.829 | + .761 | Chela | 2.128 | +1.071 |
| Koto | .987 | — .081 | Mino | .958 | — .099 |
| Cresset | .935 | — .133 | Acontium | 1.299 | + .242 |
| Hubblebubble | .916 | — .152 | Ampyx | .747 | — .310 |
| | | | Aplustre | .588 | — .469 |
| M.R.T. | 1.068 | .198 | Parbuckle | .913 | — .144 |
| | | | Araba | .934 | — .123 |
| Bunst | 1.774 | | | | |
| Swarp | 1.145 | | M.R.T. | 1.057 | .204 |
| M.R.T. | 1.459 | | | | |
| Task fulfilled | 13 | | Task fulfilled | 16 | |
| " un " | 0 | | " un " | 0 | |

DECEMBER 24, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Kago | 1.021 | + .089 | Dagon | .873 | + .144 |
| Araba | 1.336 | + .404 | Besague | .628 | — .131 |
| Mambrino | 1.324 | + .392 | Corbel | .681 | — .078 |
| Heaume | .854 | — .078 | Burin | .730 | — .029 |
| Jougs | .793 | — .139 | Ampyx | 1.058 | + .299 |
| Hippogriff | .823 | — .109 | Aplustre | 1.024 | + .265 |
| Peruke | .565 | — .367 | Mace | .765 | + .006 |
| Acontium | 1.143 | + .211 | Chela | .791 | + .032 |
| Aquaemanale | .718 | — .214 | Mino | .795 | + .036 |
| Argali | .815 | — .117 | Koto | .786 | + .027 |
| Chank | .780 | — .152 | Cresset | .686 | — .073 |
| Parbuckle | 1.150 | + .218 | Sabbaton | .679 | — .080 |
| Martlet | .623 | — .309 | Brob | .521 | — .238 |
| Costrel | 1.062 | + .130 | Hubblebubble | .616 | — .143 |
| Pavon | .986 | + .054 | | | |
| M.R.T. | .932 | .199 | M.R.T. | .759 | .113 |
| | | | Perlam | 1.748 | |
| | | | Trant | 1.042 | |
| | | | M.R.T. | 1.395 | |
| Task fulfilled | 15 | | Task fulfilled | 14 | |
| " un " | 0 | | " un " | 0 | |

DECEMBER 28, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Dagon | .632 | + .007 | Kago | .733 | + .095 |
| Besague | 1.210 | + .585 | Araba | .610 | — .028 |
| Corbel | .510 | — .115 | Mambrino | .801 | + .163 |
| Burin | .649 | + .024 | Heaume | .738 | + .100 |
| Ampyx | .534 | — .091 | Jougs | .639 | + .001 |
| Aplustre | .603 | — .022 | Hippogriff | .520 | — .118 |
| Mace | .420 | — .205 | Peruke | .608 | — .030 |
| Chela | .554 | — .071 | Acontium | .744 | + .106 |
| Mino | .719 | + .094 | Aquaemanale | .689 | + .051 |
| Koto | .544 | — .081 | Argali | .627 | — .011 |
| Cresset | .651 | + .026 | Chank | .651 | + .013 |
| Sabbaton | .581 | — .044 | Parbuckle | .550 | — .088 |
| Brob | .569 | — .056 | Martlet | .477 | — .161 |
| Hubblebubble | .586 | — .039 | Costrel | .495 | — .143 |
| | | | Pavon | .700 | + .062 |
| M.R.T. | .625 | .104 | M.R.T. | .638 | .078 |
| Perlam | .844 | | | | |
| Trant | .598 | | | | |
| M.R.T. | .721 | | | | |
| Task fulfilled | 14 | | Task fulfilled | 15 | |
| " un " | 0 | | " un " | 0 | |

## SUBJECT 3

### October 14, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Aquaemanale | .690 | — .420 | Sabbaton | .946 | — .449 |
| Kago | 1.635 | + .525 | Mace | 1.103 | — .292 |
| Parbuckle | .930 | — .180 | Acontium | .895 | — .500 |
| Heaume | 1.144 | + .034 | Koto (D) | 2.846 | +1.451 |
| Mambrino | 2.548 | +1.438 | Cresset | 1.164 | — .231 |
| Aplustre | .931 | — .179 | Pavon | 1.804 | + .409 |
| Ampyx | .731 | — .379 | Chela | .792 | — .603 |
| Jougs | .727 | — .383 | Brob (D) | 1.943 | + .548 |
| Hippogriff | .692 | — .418 | Araba | 1.266 | — .129 |
| Martlet | 1.078 | — .032 | Hubblebubble | 2.181 | + .786 |
| | | | Dagon | .993 | — .402 |
| M.R.T. | 1.110 | .399 | Peruke | .818 | — .577 |
| | | | M.R.T. | 1.395 | .531 |
| | | | D excluded | 1.196 | |
| Task fulfilled | 10 | | Task fulfilled | 12 | |
| " un " | 4 | | " un " | 3 | |

### October 21, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Heaume | 1.383 | + .355 | Parbuckle | 1.120 | — .206 |
| Chank | 1.085 | + .057 | Aplustre | 1.451 | + .125 |
| Chela | .642 | — .386 | Peruke | .763 | — .563 |
| Argali | 1.212 | + .184 | Ampyx | 1.979 | + .653 |
| Kago | 1.039 | + .011 | Brob | 1.171 | — .155 |
| Araba | 1.415 | + .387 | Dagon | .954 | — .372 |
| Hubblebubble | .970 | — .058 | Jougs | 1.030 | — .296 |
| Hippogriff | .670 | — .358 | Cresset | .997 | — .329 |
| Acontium | .843 | — .185 | Besague | 1.646 | + .320 |
| | | | Martlet | 1.077 | — .249 |
| M.R.T. | 1.028 | .220 | Corbel | 2.405 | +1.079 |
| | | | M.R.T. | 1.326 | .395 |
| Task fulfilled | 9 | | Task fulfilled | 11 | |
| " un " | 2 | | " un " | 2 | |

### October 28, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Koto | .719 | — .233 | Mambrino | .970 | — .459 |
| Kago | .786 | — .166 | Ampyx | 2.587 | +1.158 |
| Dagon | .956 | + .004 | Parbuckle | .979 | — .451 |
| Martlet | .999 | + .047 | Corbel (D) | 1.898 | + .469 |
| Mace | .756 | — .196 | Peruke | 1.220 | — .209 |
| Chela | .833 | — .119 | Aplustre | 1.505 | + .076 |
| Acontium | .899 | — .053 | Jougs | .944 | — .485 |
| Chank | 1.331 | + .379 | Sabbaton | .989 | — .440 |
| Hubblebubble | 1.236 | + .284 | Mino | 2.103 | + .674 |
| Burin | .738 | — .214 | Brob | 1.095 | — .334 |
| Cresset | .702 | — .250 | | | |
| Aquaemanale | .677 | — .275 | M.R.T. | 1.429 | .475 |
| Hippogriff | .828 | — .124 | D. excluded | 1.376 | |
| Besague | 1.876 | + .924 | | | |
| M.R.T. | .952 | .233 | | | |
| Task fulfilled | 14 | | Task fulfilled | 10 | |
| " un " | 1 | | " un " | 2 | |

NOVEMBER 4, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Besague | 1.135 | + .211 | Jougs | .916 | — .216 |
| Brob | .721 | — .203 | Hippogriff | .743 | — .389 |
| Aplustre | .854 | — .070 | Mambrino | 1.458 | + .326 |
| Kago | .797 | — .127 | Martlet | 1.179 | + .047 |
| Pavon | 1.060 | + .136 | Cresset | 1.556 | + .424 |
| Peruke | .635 | — .289 | Sabbaton | .923 | — .209 |
| Mace | .652 | — .272 | Koto | 1.230 | + .098 |
| Chank | .979 | + .055 | Mino | 1.358 | + .226 |
| Argali (D) | 2.262 | +1.338 | Chela | .829 | — .303 |
| Heaume | .728 | — .196 | | | |
| Parbuckle | .295 | — .629 | M.R.T. | 1.132 | .249 |
| Hubblebubble | 1.428 | + .504 | | | |
| Araba | .676 | — .248 | | | |
| Burin | .789 | — .135 | | | |
| Corbel | 1.306 | + .382 | | | |
| Aquaemanale | .782 | — .142 | | | |
| Dagon | .621 | — .303 | | | |
| M.R.T. | .924 | .308 | | | |
| D. excluded | .841 | | | | |
| Task fulfilled | 17 | | Task fulfilled | 9 | |
| " un " | 1 | | " un " | 2 | |

NOVEMBER 11, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Mace | .591 | — .359 | Acontium | .922 | — .214 |
| Dagon | .728 | — .222 | Mino | 1.815 | + .679 |
| Martlet | .760 | — .190 | Burin | .864 | — .272 |
| Ampyx | .537 | — .413 | Parbuckle | .854 | — .282 |
| Koto | .553 | — .397 | Hubblebubble | .938 | — .198 |
| Cresset | 2.370 | +1.420 | Peruke | 1.167 | + .031 |
| Corbel | .574 | — .376 | Sabbaton | .805 | — .331 |
| Costrel | 2.187 | +1.237 | Brob | .989 | — .147 |
| Jougs | .824 | — .126 | Mambrino | 1.398 | + .262 |
| Hippogriff | .876 | — .074 | Pavon | .690 | — .446 |
| Aplustre | 1.241 | + .291 | Kago | 1.147 | + .011 |
| Argali | .745 | — .205 | Chank | .948 | — .188 |
| Aquaemanale | .686 | — .264 | Heaume | 1.540 | + .404 |
| Chela | .637 | — .313 | Besague | 1.835 | + .699 |
| M.R.T. | .950 | .420 | M.R.T. | 1.136 | .297 |
| Task fulfilled | 14 | | Task fulfilled | 14 | |
| " un " | 0 | | " un " | 1 | |

NOVEMBER 18, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Acontium | .695 | — .061 | Cresset | .927 | — .269 |
| Aquaemanale | .573 | — .183 | Besague | 1.675 | + .479 |
| Ampyx | .536 | — .220 | Burin | 1.087 | — .109 |
| Chela | .586 | — .170 | Brob | .819 | — .377 |
| Peruke | .565 | — .191 | Pavon | .769 | — .427 |
| Koto | 1.743 | + .987 | Hubblebubble | 1.594 | + .398 |
| Kago | .768 | + .012 | Aplustre | 1.117 | — .079 |
| Corbel | .684 | — .072 | Heaume | 1.178 | — .018 |
| Parbuckle | .594 | — .162 | Araba | 1.236 | + .040 |
| Martlet | .695 | — .061 | Chank | 1.315 | + .119 |
| Hippogriff | .955 | + .199 | Mino | 1.669 | + .473 |
| Argali | .885 | + .129 | Mace | 1.561 | + .365 |
| Jougs | .556 | — .200 | Dagon | .774 | — .422 |
| | | | Sabbaton | .912 | — .284 |
| M.R.T. | .756 | .204 | Costrel | 1.059 | — .137 |
| | | | Mambrino | 1.451 | + .255 |
| | | | M.R.T. | 1.196 | .266 |
| Task fulfilled | 13 | | Task fulfilled | 16 | |
| " un " | 0 | | " un " | 0 | |

NOVEMBER 29, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Hubblebubble | .588 | — .376 | Aquaemanale | 1.161 | — .163 |
| Heaume | 1.116 | + .152 | Peruke | 1.773 | .449 |
| Araba | .669 | — .295 | Chela | .653 | — .671 |
| Parbuckle | .699 | — .265 | Burin | 1.144 | — .180 |
| Pavon | 1.702 | + .738 | Cresset | 1.380 | .046 |
| Aplustre | .801 | — .163 | Besague | 1.566 | .242 |
| Acontium | .627 | — .337 | Brob | 1.049 | — .275 |
| Chank | 1.005 | + .041 | Dagon | 1.126 | — .198 |
| Mino | 1.238 | + .274 | Sabbaton | .971 | — .353 |
| Jougs | .894 | — .070 | Mambrino | 1.488 | .164 |
| Mace | .893 | — .071 | Costrel | 1.171 | — .153 |
| Martlet | .848 | — .116 | Koto | 1.353 | .029 |
| Hippogriff | 1.662 | + .698 | Corbel (D) | 2.348 | 1.024 |
| Argali | .760 | — .204 | Kago | 1.358 | .034 |
| M.R.T. | .964 | .271 | M.R.T. | 1.324 | .284 |
| | | | *D* excluded | 1.245 | |
| Task fulfilled | 14 | | Task fulfilled | 14 | |
| " un " | 0 | | " un " | 1 | |

DECEMBER 24, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Mether | 1.394 | + .471 | Emplectum | 1.472 | + .127 |
| Furcula | .740 | — .183 | Ophicleide | 1.106 | — .239 |
| Epi | .744 | — .179 | Erminois | 1.157 | — .188 |
| Limber | .976 | + .053 | Modillion | 1.287 | — .058 |
| Biberon | 1.318 | + .395 | Maravedi | 1.484 | + .139 |
| Xylophone | .671 | — .252 | Aftaba | 1.187 | — .158 |
| Hooka | 1.325 | + .402 | Parement | .826 | — .519 |
| Pantiles | .909 | — .014 | Camail | 1.164 | — .181 |
| Gablet | .692 | — .231 | Agonoderus | 1.440 | + .095 |
| Nog | 1.012 | + .089 | Lorcha | 1.870 | + .525 |
| Trousse | .504 | — .419 | Francisca | .808 | — .537 |
| Winch | .791 | — .132 | Hypogeum | 1.048 | — .297 |
| | | | Theseum | 1.923 | + .578 |
| M.R.T. | .923 | .235 | Warkamoowee | 2.061 | + .716 |
| | | | M.R.T. | 1.345 | .311 |
| Mepsol | 1.156 | | | | |
| Wamps | 1.010 | | | | |
| M.R.T. | 1.083 | | | | |
| Task fulfilled | 12 | | Task fulfilled | 14 | |
| " un " | 0 | | " un " | 0 | |

JANUARY 1, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Ophicleide | 1.474 | + .082 | Epi | 1.067 | — .211 |
| Modillion | 1.545 | + .153 | Xylophone | 1.174 | — .104 |
| Maravedi | 1.468 | + .076 | Hooka | 2.073 | + .795 |
| Parement | 1.434 | + .042 | Pantiles | 1.391 | + .113 |
| Camail | 1.832 | + .440 | Gablet | .982 | — .296 |
| Agonoderus | 1.069 | — .323 | Trousse | .899 | — .379 |
| Lorcha (D) | 2.559 | +1.167 | Acrostolium | 1.360 | + .082 |
| Francisca | .576 | — .816 | | | |
| Hypogeum | .808 | — .584 | M.R.T. | 1.278 | .283 |
| Theseum | 1.426 | + .034 | | | |
| Warkamoowee | 1.123 | — .269 | Traft | 1.009 | |
| | | | Zarzo | .951 | |
| M.R.T. | 1.392 | .362 | M.R.T. | .980 | |
| D excluded | 1.275 | | | | |
| Task fulfilled | 11 | | Task fulfilled | 7 | |
| " un " | 3 | | " un " | 6 | |

JANUARY 13, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Ophicleide | 1.048 | — .381 | Francisca | 1.245 | — .246 |
| Lorcha | 2.558 | +1.129 | Agonoderus | 1.091 | — .400 |
| Hooka | 2.133 | + .704 | Limber | 1.164 | — .327 |
| Mether | 2.438 | +1.009 | Nog | 1.237 | — .254 |
| Furcula | 1.038 | — .391 | Epi | 1.969 | + .478 |
| Pantiles | .855 | — .574 | Xylophone | 1.618 | + .127 |
| Trousse | 1.189 | — .240 | Camail | 1.140 | — .351 |
| Erminois | 1.797 | + .368 | Biberon | 1.908 | + .417 |
| Acrostolium | 1.188 | — .241 | Gablet | 1.789 | + .298 |
| Emplectum | .925 | — .504 | Winch | 1.869 | + .378 |
| Parement | .952 | — .477 | Hypogeum | 1.101 | — .390 |
| Aftaba | 1.989 | + .560 | Theseum | 1.768 | + .277 |
| Maravedi | 1.234 | — .195 | | | |
| Warkamoowee | .673 | — .756 | M.R.T. | 1.491 | .329 |
| | | | Darma | 1.304 | |
| M.R.T. | 1.429 | .538 | Traft | 1.877 | |
| | | | M.R.T. | 1.590 | |
| Task fulfilled | 14 | | Task fulfilled | 12 | |
| " un " | 0 | | " un " | 1 | |

JANUARY 20, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Ophicleide | .806 | — .396 | Agonoderus | 1.769 | + .366 |
| Trousse | 1.098 | — .104 | Epi | 1.439 | + .036 |
| Emplectum | 1.298 | + .096 | Hooka | 1.094 | — .309 |
| Theseum | 1.346 | + .144 | Erminois | 1.581 | + .178 |
| Hypogeum | 1.348 | + .146 | Acrostolium | 1.081 | — .322 |
| Lorcha | 1.304 | + .102 | Modillion | 1.784 | + .381 |
| Warkamoowee | .880 | — .322 | Camail | 1.468 | + .065 |
| Francisca | 1.135 | — .067 | Pantiles | 1.516 | + .113 |
| Nog | 1.370 | + .168 | Furcula | 1.286 | — .117 |
| Mether | 1.604 | + .402 | Parement | .942 | — .461 |
| Biberon | 1.066 | — .136 | Limber | 1.483 | + .080 |
| Gablet | 1.269 | + .067 | | | |
| Aftaba | 1.109 | — .093 | M.R.T. | 1.403 | .221 |
| M.R.T. | 1.202 | .172 | Nicks | .891 | |
| | | | Mepsol | 1.044 | |
| | | | Trep | 1.248 | |
| | | | M.R.T. | 1.061 | |
| Task fulfilled | 13 | | Task fulfilled | 11 | |
| " un " | 1 | | " un " | 2 | |

JANUARY 27, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Maravedi | 1.353 | + .192 | Hypogeum | 1.385 | — .170 |
| Erminois | 1.269 | + .108 | Winch | 1.654 | + .099 |
| Hooka | 1.336 | + .175 | Nog | 1.519 | — .036 |
| Xylophone | 1.204 | + .043 | Epi | 1.547 | — .008 |
| Modillion | 1.422 | + .261 | Trousse | 1.069 | — .486 |
| Pantiles | 1.055 | — .106 | Emplectum | 1.253 | — .302 |
| Parement | .819 | — .342 | Furcula | 1.215 | — .340 |
| Francisca | .715 | — .446 | Ophicleide | 1.226 | — .329 |
| Agonoderus | .844 | — .317 | Warkamoowee | 2.634 | +1.079 |
| Acrostolium | 2.263 | +1.102 | Lorcha | 1.841 | + .286 |
| Biberon | .918 | — .243 | Mether | 1.284 | — .271 |
| Limber | .784 | — .377 | Gablet | 1.173 | — .382 |
| Aftaba | 1.119 | — .042 | Theseum (D) | 2.336 | + .781 |
| | | | Camail | 1.644 | + .089 |
| M.R.T. | 1.161 | .289 | | | |
| | | | M.R.T. | 1.555 | .333 |
| Marix | .981 | | *D* excluded | 1.495 | |
| Task fulfilled | 13 | | Task fulfilled | 14 | |
| " un " | 0 | | " un " | 0 | |

SUBJECT 4

SEPTEMBER 18, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Araba | 1.366 | — .118 | Besague | .916 | — .573 |
| Kago | 1.444 | — .040 | Aquaemanale | 2.570 | +1.081 |
| Pavon | 1.366 | — .118 | Acontium | .240 | —1.249 |
| Dagon | 1.501 | + .017 | Martlet | 1.157 | — .332 |
| Heaume | 1.375 | — .109 | Hubblebubble | 1.856 | + .367 |
| Brob | 1.840 | + .356 | Argali | 2.669 | +1.180 |
| Burin | 1.413 | — .071 | Mambrino | 1.510 | + .021 |
| Mino | 2.675 | +1.191 | Jougs | 1.039 | — .450 |
| Ampyx | 1.071 | — .413 | Cresset | 1.255 | — .234 |
| Chank | .900 | — .584 | Aplustre | 1.048 | — .441 |
| Hippogriff | 1.380 | — .104 | Costrel | 1.809 | + .320 |
| | | | Peruke | .906 | — .583 |
| M.R.T. | 1.484 | .284 | Koto | 2.943 | +1.454 |
| | | | Mace | .930 | — .559 |
| | | | M.R.T. | 1.489 | .632 |
| Task fulfilled | 11 | | Task fulfilled | 14 | |
| " un " | 1 | | " un " | 2 | |

OCTOBER 28, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Hubblebubble | 2.102 | + .342 | Ampyx | 1.427 | — .640 |
| Burin | 1.804 | + .044 | Mambrino | 1.724 | — .343 |
| Sabbaton | 1.934 | + .174 | Aquaemanale | 1.834 | — .233 |
| Peruke | 1.747 | — .013 | Besague | 2.504 | + .437 |
| Brob | 2.435 | + .675 | Jougs | 1.446 | — .621 |
| Costrel | 2.266 | + .506 | Pavon | 1.936 | — .131 |
| Aplustre | 1.658 | — .102 | Parbuckle | 2.744 | + .677 |
| Chank | 1.034 | — .726 | Martlet | 2.267 | + .200 |
| Acontium | 1.848 | + .088 | Dagon | 2.721 | + .654 |
| Corbel | 1.105 | — .655 | | | |
| Chela | 2.282 | + .522 | M.R.T. | 2.067 | .437 |
| Mace | 1.880 | + .120 | | | |
| Cresset | 1.799 | + .039 | | | |
| Kago | 1.150 | — .610 | | | |
| Koto | 1.362 | — .398 | | | |
| M.R.T. | 1.760 | .334 | | | |
| Task fulfilled | 15 | | Task fulfilled | 9 | |
| " un " | 2 | | " un " | 3 | |

NOVEMBER 4, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Mambrino | 1.278 | — .099 | Kago | 1.201 | + .036 |
| Hippogriff | 1.590 | + .213 | Araba | 1.172 | + .007 |
| Brob | 1.831 | + .454 | Pavon | 1.288 | + .123 |
| Sabbaton | .891 | — .486 | Koto | .996 | — .169 |
| Acontium | 1.064 | — .313 | Corbel | 1.071 | — .094 |
| Mace | 1.155 | — .222 | Chank | .867 | — .298 |
| Chela | .968 | — .409 | Aplustre | 1.287 | + .122 |
| Parbuckle | 1.291 | — .086 | Jougs | .599 | — .566 |
| Heaume | 2.283 | + .906 | Ampyx | .828 | — .337 |
| Dagon | 1.213 | — .164 | Peruke | 1.179 | + .014 |
| Aquaemanale | 1.574 | + .197 | Costrel | 2.500 | +1.335 |
| Mino | 1.655 | + .278 | Burin | 1.037 | — .128 |
| Besague | 1.117 | — .260 | Martlet | 1.399 | + .234 |
| | | | Cresset | .892 | — .273 |
| M.R.T. | 1.377 | .315 | | | |
| | | | M.R.T. | 1.165 | .267 |
| Task fulfilled | 13 | | Task fulfilled | 14 | |
| " un " | 1 | | " un " | 1 | |

NOVEMBER 11, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Aquaemanale | 1.221 | + .225 | Chank | 1.070 | — .002 |
| Chela | 1.134 | + .138 | Argali | 1.407 | + .335 |
| Besague | .821 | — .175 | Aplustre | 1.153 | + .081 |
| Heaume | 1.067 | + .071 | Jougs | .909 | — .163 |
| Araba | 1.199 | + .203 | Sabbaton | 1.344 | + .272 |
| Kago | .822 | — .174 | Peruke | 1.013 | — .059 |
| Pavon | .778 | — .218 | Hubblebubble | 1.468 | + .396 |
| Mambrino | .898 | — .098 | Parbuckle | 1.415 | + .343 |
| Brob | .942 | — .054 | Burin | .795 | — .277 |
| Costrel | 1.670 | + .674 | Mace | .855 | — .217 |
| Cresset | .881 | — .115 | Martlet | .929 | — .143 |
| Mino | .768 | — .228 | Dagon | .782 | — .290 |
| Acontium | .822 | — .174 | Corbel | .797 | — .275 |
| Koto | .811 | — .185 | | | |
| Ampyx | 1.111 | + .115 | M.R.T. | 1.072 | .219 |
| M.R.T. | .996 | .189 | | | |
| Task fulfilled | 15 | | Task fulfilled | 13 | |
| " un " | 0 | | " un " | 1 | |

NOVEMBER 17, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Jougs | .825 | — .068 | Mino | .682 | — .264 |
| Argali | 1.170 | + .277 | Aquaemanale | 2.384 | +1.438 |
| Araba | 1.485 | + .592 | Mace | .732 | — .214 |
| Pavon | .726 | — .167 | Chela | .748 | — .198 |
| Aplustre | .817 | — .076 | Dagon | .827 | — .119 |
| Brob | .980 | + .087 | Parbuckle | .622 | — .324 |
| Chank | .724 | — .169 | Corbel | .741 | — .205 |
| Sabbaton | .817 | — .076 | Ampyx | .690 | — .256 |
| Martlet | .756 | — .137 | Koto | .813 | — .133 |
| Hippogriff | .775 | — .118 | Kago | .698 | — .248 |
| Acontium | .983 | + .090 | Heaume | .832 | — .114 |
| Hubblebubble | 1.103 | + .210 | Peruke | .895 | — .051 |
| Mambrino | .978 | + .085 | Costrel | 1.646 | + .700 |
| Cresset | .579 | + .314 | | | |
| Besague | .870 | — .023 | M.R.T. | .946 | .328 |
| Burin | .702 | — .191 | | | |
| M.R.T. | 839 | .167 | | | |
| Task fulfilled | 16 | | Task fulfilled | 13 | |
| " un " | 0 | | " un " | 0 | |

DECEMBER 22, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Chela | .976 | + .047 | Acontium | .988 | — .092 |
| Argali | 1.144 | + .215 | Martlet | .802 | — .278 |
| Sabbaton | 1.041 | + .112 | Koto | .862 | — .218 |
| Mambrino | .824 | — .105 | Araba | 1.388 | + .308 |
| Dagon | .543 | — .386 | Mino | .942 | — .138 |
| Peruke | .716 | — .213 | Burin | 1.002 | — .078 |
| Jougs | .782 | — .147 | Chank | 1.118 | + .038 |
| Hippogriff | 1.232 | + .303 | Parbuckle | 1.934 | + .854 |
| Ampyx | 1.114 | + .185 | Aplustre | .916 | — .164 |
| Hubblebubble | .949 | + .020 | Heaume | 1.044 | — .036 |
| Pavon | .872 | — .057 | Mace | .885 | — .195 |
| Costrel | 1.013 | + .084 | | | |
| Aquaemanale | .907 | — .022 | M.R.T. | 1.080 | .218 |
| Brob | .878 | — .051 | | | |
| Corbel | .876 | — .053 | | | |
| Cresset | .808 | — .121 | | | |
| Kago | 1.134 | + .205 | | | |
| M.R.T. | .929 | .137 | | | |
| Task fulfilled | 17 | | Task fulfilled | 11 | |
| " un " | 0 | | " un " | 0 | |

DECEMBER 23, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Martlet | 1.040 | + .154 | Mambrino | .942 | — .206 |
| Costrel | .915 | + .029 | Jougs | 1.118 | — .030 |
| Pavon | .921 | + .035 | Heaume | .923 | — .225 |
| Cresset | .810 | — .076 | Hippogriff | 1.172 | + .024 |
| Koto | .920 | + .034 | Araba | 1.551 | + .403 |
| Mino | 1.009 | + .123 | Brob | 1.013 | — .135 |
| Chela | .713 | — .173 | Acontium | .984 | — .164 |
| Mace | .895 | + .009 | Peruke | 1.056 | — .092 |
| Aplustre | .725 | — .161 | Besague | 1.154 | + .006 |
| Ampyx | .948 | + .062 | Aquaemanale | 1.759 | + .611 |
| Kago | 1.047 | + .161 | Argali | 1.106 | — .042 |
| Hubblebubble | 1.131 | + .245 | Chank | .910 | — .238 |
| Corbel | .707 | — .179 | Parbuckle | 1.356 | + .208 |
| Burin | .839 | — .047 | Dagon | 1.036 | — .112 |
| Sabbaton | .674 | — .212 | | | |
| M.R.T. | .886 | .113 | M.R.T. | 1.148 | .178 |
| Task fulfilled | 15 | | Task fulfilled | 14 | |
| " un " | 0 | | " un " | 0 | |

DECEMBER 24, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Burin | .714 | — .126 | Peruke | .958 | + .004 |
| Corbel | .764 | — .076 | Brob | .961 | + .007 |
| Besague | .909 | + .069 | Hippogriff | .776 | — .178 |
| Dagon | .622 | — .218 | Jougs | .741 | — .213 |
| Parbuckle | .799 | — .041 | Heaume | .824 | — .130 |
| Chank | .905 | + .065 | Mambrino | .842 | — .112 |
| Aquaemanale | 1.217 | + .377 | Araba | 1.096 | + .142 |
| Acontium | .874 | + .034 | Kago | 1.110 | + .156 |
| Mace | .649 | — .191 | Ampyx | 1.207 | + .253 |
| Chela | .909 | + .069 | Aplustre | 1.501 | + .547 |
| Mino | .709 | — .131 | Martlet | .803 | — .151 |
| Koto | 1.033 | + .193 | Pavon | .783 | — .171 |
| Costrel | .861 | + .021 | Cresset | 1.023 | + .069 |
| Argali | .806 | — .034 | Sabbaton | .734 | — .220 |
| M.R.T. | .840 | .117 | M.R.T. | .954 | .168 |
| Task fulfilled | 14 | | Task fulfilled | 14 | |
| " un " | 0 | | " un " | 1 | |

SUBJECT 5

SEPTEMBER 20, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Besague | 1.577 | + .785 | Dagon | 1.306 | + .446 |
| Aquaemanale | 1.002 | + .210 | Sabbaton | 1.362 | + .502 |
| Brob | .687 | — .105 | Koto | .883 | + .023 |
| Burin | .854 | + .062 | Chela | .549 | — .311 |
| Acontium | .946 | + .154 | Argali | .553 | — .307 |
| Mino | .776 | — .016 | Parbuckle | .887 | + .027 |
| Corbel | .707 | — .085 | Mambrino | .599 | — .261 |
| Hubblebubble | .778 | — .014 | Jougs | .810 | — .050 |
| Heaume | .270 | — .522 | Cresset | .462 | — .398 |
| Araba | .595 | — .197 | Costrel | 1.196 | + .336 |
| Martlet | .815 | + .023 | | | |
| Kago | .518 | — .274 | M.R.T. | .860 | .266 |
| | | | Merton | 1.256 | |
| M.R.T. | .792 | .204 | Rahman | 1.690 | |
| | | | M.R.T. | 1.473 | |
| Task fulfilled | 12 | | Task fulfilled | 10 | |
| " un " | 5 | | " un " | 2 | |

OCTOBER 21, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Jougs | 2.027 | — .010 | Brob | 1.231 | — .243 |
| Ampyx | 2.019 | — .018 | Corbel | .959 | — .515 |
| Chela | 2.003 | — .034 | Sabbaton | 2.048 | + .574 |
| Mambrino | 2.268 | + .231 | Burin | 1.386 | — .088 |
| Parbuckle | 1.290 | — .747 | Dagon | 1.121 | — .353 |
| Costrel | 1.833 | — .204 | Hippogriff | .784 | — .690 |
| Besague | 2.038 | + .001 | Hubblebubble | .955 | — .519 |
| | | | Cresset | 2.750 | +1.276 |
| M.R.T. | 1.925 | .178 | Koto | 2.035 | + 561 |
| | | | M.R.T. | 1.474 | .535 |
| Task fulfilled | 7 | | Task fulfilled | 9 | |
| " un " | 8 | | " un " | 5 | |

NOVEMBER 17, 1917

| MEANING | R.T. | M.V. |
|---|---|---|
| Mino | 1.331 | + .037 |
| Chank | 1.487 | + .193 |
| Aquaemanale | 1.198 | — .096 |
| Chela | 2.032 | + .738 |
| Parbuckle | .444 | — .850 |
| Sabbaton | 1.130 | — .164 |
| Martlet | .939 | — .355 |
| Acontium | 1.689 | + .395 |
| Hippogriff | .754 | — .540 |
| Costrel | 2.395 | +1.101 |
| Heaume | .840 | — .454 |
| M.R.T. | 1.249 | .447 |
| Ratan | 2.488 | |
| Martin | 2.330 | |
| M.R.T. | 2.409 | |
| Task fulfilled | 11 | |
| " un " | 2 | |

| IMAGE | R.T. | M.V. |
|---|---|---|
| Hubblebubble | 1.129 | + .021 |
| Mambrino | .827 | — .281 |
| Mace | .739 | — .369 |
| Dagon | 1.072 | — .036 |
| Ampyx | 1.515 | + .407 |
| Corbel | 1.053 | — .055 |
| Koto | 1.165 | + .057 |
| Cresset | .714 | — .394 |
| Burin | 1.179 | + .071 |
| Jougs | 1.965 | + .857 |
| Araba | 1.164 | + .056 |
| Brob | .780 | — .328 |
| M.R.T. | 1.108 | .244 |
| Task fulfilled | 12 | |
| " un " | 4 | |

DECEMBER 2, 1917

| MEANING | R.T. | M.V. |
|---|---|---|
| Chela | .437 | — .116 |
| Araba | .646 | + .093 |
| Argali | .612 | + .059 |
| Dagon | .556 | + .003 |
| Mino | .534 | — .019 |
| Martlet | .565 | + .012 |
| Chank | .660 | + .107 |
| Parbuckle | .474 | — .079 |
| Aplustre | .566 | + .013 |
| Pavon | .494 | — .059 |
| Corbel | .551 | — .002 |
| Acontium | .662 | + .109 |
| Koto | .437 | — .116 |
| M.R.T. | .535 | .060 |
| Trant | 1.375 | |
| Hepes | 1.028 | |
| M.R.T. | 1.201 | |
| Task fulfilled | 13 | |
| " un " | 0 | |

| IMAGE | R.T. | M.V. |
|---|---|---|
| Jougs | .403 | — .127 |
| Ampyx | .550 | + .020 |
| Aquaemanale | .514 | — .016 |
| Heaume | .489 | — .041 |
| Mace | .469 | — .061 |
| Burin | .467 | — .063 |
| Cresset | .670 | + .140 |
| Besague | .501 | — .029 |
| Brob | .520 | — .010 |
| Hubblebubble | .440 | — .090 |
| Kago | .604 | + .074 |
| Costrel | .586 | + .056 |
| Mambrino | .497 | — .033 |
| Hippogriff | .597 | + .067 |
| Peruke | .642 | + .112 |
| Sabbaton | .441 | — .089 |
| M.R.T. | .530 | .064 |
| Task fulfilled | 16 | |
| " un " | 0 | |

DECEMBER 9, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Aquaemanale | .669 | + .136 | Hubblebubble | .268 | — .249 |
| Acontium | .752 | + .219 | Cresset | .281 | — .236 |
| Mambrino | .613 | + .080 | Mace | .638 | + .121 |
| Chank | .521 | — .012 | Heaume | .287 | — .230 |
| Jougs | .519 | — .014 | Pavon | .503 | — .014 |
| Hippogriff | .296 | — .237 | Chela | .639 | + .122 |
| Martlet | .973 | + .440 | Peruke | .603 | + .086 |
| Corbel | .620 | + .087 | Besague | .296 | — .221 |
| Burin | .608 | + .075 | Sabbaton | .686 | + .169 |
| Argali | .757 | + .224 | Amypx | .731 | + .214 |
| Dagon | .325 | — .208 | Koto | .670 | + .153 |
| Mino | .307 | — .226 | Brob | .605 | + .088 |
| Araba | .260 | — .273 | Kago | .520 | + .003 |
| Costrel | .413 | — .120 | | | |
| Aplustre | .353 | — .180 | M.R.T. | .517 | .147 |
| Parbuckle | .550 | + .017 | | | |
| | | | Hepes | .588 | |
| M.R.T. | .533 | .159 | | | |
| Task fulfilled | 16 | | Task fulfilled | 13 | |
| " un " | 0 | | " un " | 0 | |

DECEMBER 16, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Parbuckle | .422 | + .052 | Kago | .401 | + .047 |
| Corbel | .473 | + .103 | Hubblebubble | .348 | — .006 |
| Burin | .438 | + .068 | Mino | .478 | + .124 |
| Aquaemanale | .221 | — .149 | Mambrino | .374 | + .020 |
| Jougs | .185 | — .185 | Costrel | .224 | — .130 |
| Mace | .463 | + .093 | Hippogriff | .425 | + .071 |
| Martlet | .573 | + .203 | Acontium | .364 | + .010 |
| Cressset | .377 | + .007 | Brob | .183 | — .171 |
| Ampyx | .324 | — .046 | Chank | .414 | + .060 |
| Besague | .298 | — .072 | Sabbaton | .240 | — .114 |
| Pavon | .436 | + .066 | Peruke | .500 | + .146 |
| Chela | .433 | + .063 | Koto | .408 | + .054 |
| Aplustre | .355 | — .015 | Argali | .305 | — .049 |
| Heaume | .193 | — .177 | Araba | .371 | + .017 |
| | | | Dagon | .288 | — .066 |
| M.R.T. | .370 | .093 | | | |
| | | | M.R.T. | .354 | .072 |
| Bunst | .386 | | | | |
| Swarp | .305 | | | | |
| M.R.T. | .345 | | | | |
| Task fulfilled | 14 | | Task fulfilled | 15 | |
| " un " | 0 | | " un " | 0 | |

DECEMBER 23, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Winch | .435 | — .329 | Erminois | .728 | — .008 |
| Lorcha | .653 | — .111 | Acrostolium | .854 | + .118 |
| Trousse | 1.120 | + .356 | Hypogeum | .961 | + .225 |
| Mether | .880 | + .116 | Nog | .867 | + .131 |
| Biberon | .672 | — .092 | Aftaba | .542 | — .194 |
| Agonoderus | .850 | + .086 | Emplectum | .718 | — .018 |
| Epi | .788 | + .024 | Warkamoowee | .802 | + .066 |
| Furcula | .854 | + .090 | Limber | .654 | — .082 |
| Theseum | .722 | — .042 | Ophicleide | .747 | + .011 |
| Gablet | .695 | — .069 | Hooka | .797 | + .061 |
| Modillion | .777 | + .013 | Camail | .641 | — .095 |
| Maravedi | .950 | + .186 | Parement | .526 | — .210 |
| Pantiles | .600 | — .164 | | | |
| Francisca | .736 | — .028 | M.R.T. | .736 | .101 |
| Xylophone | .731 | — .033 | | | |
| M.R.T. | .764 | .116 | Task fulfilled | 12 | |
| | | | " un " | 0 | |
| Controls | | | | | |
| Perlam | .984 | | | | |
| Kliksa | .746 | | | | |
| M.R.T. | .865 | | | | |
| Task fulfilled | 15 | | | | |
| " un " | 0 | | | | |

DECEMBER 24, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Maravedi | .544 | + .068 | Hooka | .434 | — .034 |
| Parement | .605 | + .129 | Trousse | .528 | + .060 |
| Aftaba | .567 | + .091 | Xylophone | .489 | + .021 |
| Modillion | .489 | + .013 | Biberon | .446 | — .022 |
| Erminois | .391 | — .085 | Limber | .515 | + .047 |
| Ophicleide | .539 | + .063 | Epi | .361 | — .107 |
| Emplectum | .439 | — .037 | Furcula | .405 | — .063 |
| Gablet | .454 | — .022 | Mether | .487 | + .019 |
| Pantiles | .348 | — .128 | Camail | .494 | + .026 |
| Hypogeum | .493 | + .017 | Lorcha | .387 | — .081 |
| Theseum | .597 | + .121 | Francisca | .541 | + .073 |
| Warkamoowee | .509 | + .033 | Agonoderus | .533 | + .065 |
| Nog | .392 | — .084 | | | |
| Winch | .343 | — .133 | M.R.T. | .468 | .051 |
| Acrostolium | .440 | — .036 | | | |
| M.R.T. | .476 | .071 | | | |
| CONTROLS | | | | | |
| Mepsol | .492 | | | | |
| Wamps | .549 | | | | |
| M.R.T. | .520 | | | | |
| Task fulfilled | 15 | | Task fulfilled | 12 | |
| " un " | 0 | | " un " | 0 | |

JANUARY 6, 1918

| MEANING | R.T. | M.V. |
|---|---|---|
| Francisca | .668 | + .094 |
| Aftaba | .589 | + .015 |
| Gablet | .453 | — .121 |
| Winch | .758 | + .184 |
| Hypogeum | .532 | — .042 |
| Warkamoowee | .600 | + .026 |
| Maravedi | .551 | — .023 |
| Parement | .506 | — .068 |
| Biberon | .637 | + .063 |
| Epi | .482 | — .092 |
| Furcula | .478 | — .096 |
| Mether | .692 | + .118 |
| Ophicleide | .527 | — .047 |
| M.R.T. | .574 | .076 |
| Darma | .556 | |
| Traft | .880 | |
| M.R.T. | .718 | |
| Task fulfilled | 13 | |
| " un " | 0 | |

| IMAGE | R.T. | M.V. |
|---|---|---|
| Acrostolium | .609 | + .046 |
| Camail | .519 | — .044 |
| Limber | .526 | — .037 |
| Modillion | .597 | + .034 |
| Erminois | .569 | + .006 |
| Lorcha | .678 | + .115 |
| Emplectum | .472 | — .091 |
| Hooka | .513 | — .050 |
| Pantiles | .513 | — .050 |
| Agonoderus | .642 | + .079 |
| Theseum | .552 | — .011 |
| Xylophone | .487 | — .076 |
| Nog | .485 | — .078 |
| Trousse | .729 | + .166 |
| M.R.T. | .563 | .063 |
| Task fulfilled | 14 | |
| " un " | 0 | |

JANUARY 13, 1918

| MEANING | R.T. | M.V. |
|---|---|---|
| Aftaba | .681 | + .178 |
| Camail | .582 | + .079 |
| Parement | .478 | — .025 |
| Gablet | .513 | + .010 |
| Mether | .528 | + .025 |
| Limber | .546 | + .043 |
| Biberon | .556 | + .053 |
| Maravedi | .398 | — .105 |
| Epi | .414 | — .089 |
| Hooka | .510 | + .007 |
| Agonoderus | .495 | — .008 |
| Lorcha | .411 | — .092 |
| Emplectum | .429 | — .074 |
| M.R.T. | .503 | .061 |
| Taskat | .467 | |
| Nicks | .456 | |
| | .461 | |
| Task fulfilled | 13 | |
| " un " | 0 | |

| IMAGE | R.T. | M.V. |
|---|---|---|
| Warkamoowee | .534 | + .019 |
| Theseum | .474 | — .041 |
| Modillion | .465 | — .050 |
| Xylophone | .591 | + .076 |
| Erminois | .551 | + .036 |
| Acrostolium | .513 | — .002 |
| Furcula | .488 | — .027 |
| Nog | .480 | — .035 |
| Pantiles | .432 | — .083 |
| Trousse | .504 | — .011 |
| Francisca | .456 | — .059 |
| Ophicleide | .989 | + .474 |
| Winch | .301 | — .214 |
| Hypogeum | .435 | — .080 |
| M.R.T. | .515 | .086 |
| Task fulfilled | 14 | |
| " un " | 0 | |

JANUARY 17, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Hooka | .429 | — .014 | Nog | .471 | + .023 |
| Furcula | .480 | + .037 | Biberon | .468 | + .020 |
| Pantiles | .550 | + .107 | Aftaba | .498 | + .050 |
| Parement | .440 | — .003 | Gablet | .484 | + .036 |
| Camail | .398 | — .045 | Limber | .511 | + .063 |
| Mether | .478 | + .035 | Xylophone | .418 | — .030 |
| Acrostolium | .437 | — .006 | Theseum | .405 | — .043 |
| Modillion | .404 | — .039 | Lorcha | .454 | + .006 |
| Warkamoowee | .477 | + .034 | Emplectum | .419 | — .029 |
| Epi | .410 | — .033 | Winch | .490 | + .042 |
| Maravedi | .291 | — .152 | Erminois | .499 | + .051 |
| Hypogeum | .473 | + .030 | Trousse | .316 | — .132 |
| Agonoderus | .449 | + .006 | Francisca | .394 | — .054 |
| Ophicleide | .495 | + .052 | | | |
| M.R.T. | .443 | .042 | M.R.T. | 448 | .044 |
| | | | Zarzo | .355 | |
| | | | Darma | .565 | |
| | | | M.R.T. | .460 | |
| Task fulfilled | 14 | | Task fulfilled | 13 | |
| " un " | 0 | | " un " | 0 | |

JANUARY 20, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Nog | .398 | + .008 | Hooka | .401 | + .036 |
| Biberon | .363 | — .027 | Furcula | .423 | + .058 |
| Aftaba | .302 | — .088 | Pantiles | .384 | + .019 |
| Gablet | .486 | + .096 | Parement | .351 | — .014 |
| Limber | .435 | + .045 | Camail | .370 | + .005 |
| Xylophone | .504 | + .114 | Mether | .536 | + .171 |
| Theseum | .483 | + .093 | Acrostolium | .330 | — .035 |
| Lorcha | .502 | + .112 | Modillion | .390 | + .025 |
| Emplectum | .346 | — .044 | Warkamoowee | .285 | — .080 |
| Winch | .309 | —. 081 | Epi | .393 | + .028 |
| Erminois | .340 | — .050 | Maravedi | .250 | — .115 |
| Trousse | .368 | — .022 | Hypogeum | .307 | — .058 |
| Francisca | .360 | — .030 | Agonoderus | .335 | — .030 |
| Ophicleide | .266 | — .124 | | | |
| M.R.T. | .390 | .067 | M.R.T. | 365 | .052 |
| Trep | .364 | | | | |
| Butan | .343 | | | | |
| M.R.T. | .353 | | | | |
| Task fulfilled | 14 | | Task fulfilled | 13 | |
| " un " | 0 | | " un " | 0 | |

JANUARY 23, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Limber | .310 | — .047 | Mether | .359 | + .035 |
| Aftaba | .459 | + .102 | Nog | .246 | — .078 |
| Biberon | .278 | — .079 | Furcula | .283 | — .041 |
| Maravedi | .463 | + .106 | Parement | .400 | + .076 |
| Modillion | .365 | + .008 | Pantiles | .439 | + .115 |
| Erminois | .388 | + .031 | Hypogeum | .246 | — .078 |
| Winch | 357 | .0 | Francisca | 323 | — .001 |
| Camail | .300 | — .057 | Lorcha | .322 | — .002 |
| Warkamoowee | .457 | + .100 | Acrostolium | .359 | + .035 |
| Gablet | .337 | — .020 | Ophicleide | .301 | — .023 |
| Xylophone | .326 | — .031 | Trousse | .335 | + .011 |
| Emplectum | .370 | + .013 | Agonoderus | .293 | — .031 |
| Epi | .269 | — .088 | Theseum | .313 | — .011 |
| Hooka | .327 | — .030 | | | |
| | | | M.R.T. | .342 | .041 |
| M.R.T. | .357 | .051 | | | |
| | | | Granz | .407 | |
| | | | Traft | .363 | |
| | | | | .385 | |
| Task fulfilled | 14 | | Task fulfilled | 13 | |
| " un " | 0 | | " un " | 0 | |

JANUARY 23, 1918 (Pictures)

| INTERPRETATION | R.T. | M.V. | WORD | R.T. | M.V. |
|---|---|---|---|---|---|
| Mether | .412 | — .043 | Maravedi | .425 | + .016 |
| Lorcha | .389 | — .066 | Camail | .428 | + .019 |
| Francisca | .470 | + .015 | Agonoderus | .540 | + .131 |
| Trousse | .603 | + .148 | Furcula | .405 | — .004 |
| Pantiles | .598 | + .143 | Limber | .309 | — .100 |
| Emplectum | .324 | — .131 | Ophicleide | .402 | — .007 |
| Xylophone | .504 | + .049 | Parement | .454 | + .045 |
| Gablet | .363 | — .092 | Biberon | .373 | — .036 |
| Acrostolium | .460 | + .005 | Hooka | .402 | — .007 |
| Erminois | .516 | + .061 | Winch | .404 | — .005 |
| Modillion | .396 | — .059 | Aftaba | .363 | — .046 |
| Warkamoowee | .426 | — .029 | Nog | .413 | + .004 |
| M.R.T. | .455 | .070 | M.R.T. | .409 | .035 |
| Controls | .598 | | | | |
| | .478 | | | | |
| | .538 | | | | |
| Task fulfilled | 12 | | Task fulfilled | 12 | |
| " un " | 1 | | " un " | 2 | |

JANUARY 27, 1918 (Pictures)

| INTERPRETATION | R.T. | M.V. | WORD | R.T. | M.V. |
|---|---|---|---|---|---|
| Maravedi | .436 | — .005 | Mether | .411 | — .087 |
| Camail | .341 | — .100 | Lorcha | .392 | —.106 |
| Agonoderus | .408 | — .033 | Francisca | .310 | — .188 |
| Furcula | .490 | + .049 | Epi | .465 | — .033 |
| Limber | .392 | — .049 | Trousse | .589 | + .091 |
| Theseum | .360 | — .081 | Hypogeum | .473 | — .025 |
| Pantiles | .535 | + .094 | Ophicleide | .606 | + .108 |
| Emplectum | .519 | + .078 | Parement | .480 | — .018 |
| Xylophone | .505 | + .064 | Biberon | .898 | + .400 |
| Gablet | .399 | + .042 | Hooka | .476 | — .022 |
| Acrostolium | .396 | — .045 | Winch | .554 | + .056 |
| Erminois | .499 | + .058 | Aftaba | .478 | — .020 |
| Modillion | .517 | + .076 | Nog | .351 | — .147 |
| Warkamoowee | .388 | — .053 | | | |
| M.R.T. | .441 | .059 | M.R.T. | .498 | .100 |
| | | | Controls | .500 | |
| | | | | .379 | |
| | | | | .439 | |
| Task fulfilled | 14 | | Task fulfilled | 13 | |
| " un " | 0 | | " un " | 0 | |

FEBRUARY 2, 1918

| INTERPRETATION | R.T. | M.V. | WORD | R.T. | M.V. |
|---|---|---|---|---|---|
| Parement | .380 | — .027 | Francisca | .453 | + .053 |
| Agonoderus | .370 | — .037 | Furcula | .445 | + .045 |
| Camail | .400 | — .007 | Lorcha | .436 | + .036 |
| Pantiles | .378 | — .029 | Mether | .456 | + .056 |
| Emplectum | .334 | — .073 | Ophicleide | .286 | — .114 |
| Xylophone | .337 | — .070 | Biberon | .487 | + .087 |
| Gablet | .324 | — .083 | Hooka | .327 | — .073 |
| Winch | .452 | + .045 | Erminois | .403 | + .003 |
| Aftaba | .447 | + .040 | Modillion | .310 | — .090 |
| Nog | .556 | + .149 | Maravedi | .240 | — .160 |
| Warkamoowee | .427 | + .020 | Acrostolium | .495 | + .095 |
| Hypogeum | .422 | + .015 | Theseum | .511 | + .111 |
| Trousse | .451 | + .044 | Limber | .363 | — .037 |
| Epi | .432 | + .025 | | | |
| M.R.T. | .407 | .047 | M.R.T. | .400 | .074 |
| | | | Controls | .854 | |
| | | | | .448 | |
| | | | MR.T. | .651 | |
| Task fulfilled | 14 | | Task fulfilled | 13 | |
| " un " | 0 | | " un " | 0 | |

FEBRUARY 3, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Trousse | .457 | + .048 | Mether | .482 | + .071 |
| Warkamoowee | .398 | — .011 | Xylophone | .452 | + .041 |
| Nog | .571 | + .162 | Agonoderus | .539 | + .128 |
| Parement | .529 | + .120 | Acrostolium | .406 | — .005 |
| Pantiles | .410 | + .001 | Ophicleide | .513 | + .102 |
| Francisca | .375 | — .034 | Winch | .374 | — .037 |
| Lorcha | .376 | — .033 | Erminois | .322 | — .089 |
| Furcula | .467 | + .058 | Aftaba | .315 | — .096 |
| Hypogeum | .355 | — .054 | Hooka | .352 | — .059 |
| Theseum | .413 | + .004 | Limber | .357 | — .054 |
| Gablet | .366 | — .043 | | | |
| Epi | .351 | — .058 | M.R.T. | .411 | .068 |
| Modillion | .371 | — .038 | | | |
| Maravedi | .294 | — .115 | Burl | .568 | |
| | | | Marix | .437 | |
| M.R.T. | .409 | .056 | Zarzo | .459 | |
| | | | M.R.T. | .488 | |
| Task fulfilled | 14 | | Task fulfilled | 10 | |
| " un " | 2 | | " un " | 1 | |

SUBJECT 6

SEPTEMBER 20, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Aquaemanale | .507 | — .228 | Sabbaton | .720 | + .040 |
| Jougs | 2.224 | +.1489 | Burin | .960 | + .280 |
| Mambrino | .630 | — .105 | Brob | 1.220 | + .540 |
| Corbel | .778 | + .043 | Costrel | .542 | — .138 |
| Araba | .608 | — .127 | Besague | .506 | — .174 |
| Kago | .594 | — .141 | Mace | .500 | — .180 |
| Martlet | .592 | — .143 | Dagon | .637 | — .043 |
| Heaume | .731 | — .004 | Chank | .359 | — .321 |
| Hubblebubble | .529 | — .206 | Acontium | 1.312 | + .632 |
| Hippogriff | .603 | — .132 | Pavon | .479 | — .201 |
| Parbuckle | .654 | — .081 | Koto | .532 | — .148 |
| Chela | .379 | — .356 | Cresset | .399 | — .281 |
| M.R.T. | .735 | .254 | M.R.T. | .680 | .248 |
| Merton | .1253 | | | | |
| Krand | 1.636 | | | | |
| M.R.T. | 1.444 | | | | |
| Task fulfilled | 12 | | Task fulfilled | 12 | |
| " un " | 2 | | " un " | 3 | |

OCTOBER 21, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Chela | 1.449 | — .153 | Burin | 1.968 | + .738 |
| Ampyx | 2.489 | + .887 | Sabbaton | 1.228 | — .002 |
| Jougs | 2.117 | + .515 | Dagon | .700 | — .530 |
| Hubblebubble | 1.993 | + .391 | Martlet | 1.006 | — .224 |
| Hippogriff | 1.039 | — .563 | Mace | .306 | — .924 |
| Kago | 2.423 | + .821 | Cresset | 2.174 | + .944 |
| Mambrino | .780 | — .822 | | | |
| Mino | 1.150 | — .452 | M.R.T. | 1.230 | .560 |
| Corbel | .754 | — .848 | | | |
| Brob | 1.831 | + .229 | | | |
| M.R.T. | 1.602 | .568 | | | |
| Task fulfilled | 10 | | Task fulfilled | 6 | |
| " un " | 7 | | " un " | 6 | |

NOVEMBER 17, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Hubblebubble | 2.291 | + .906 | Hippogriff | 1.452 | + .250 |
| Burin | 1.067 | — .318 | Martlet | .753 | — .449 |
| Peruke | 1.887 | + .502 | Sabbaton | .810 | — .392 |
| Dagon | 2.207 | + .822 | Parbuckle | .732 | — .470 |
| Chela | 1.384 | — .001 | Aquaemanale | 2.706 | +1.504 |
| Mace | 1.279 | — .106 | Kago | .997 | — .205 |
| Mino | .559 | — .826 | Mambrino | 1.152 | — .050 |
| Ampyx | 1.375 | — .010 | Aplustre | 1.045 | — .157 |
| Corbel | .873 | — .512 | Pavon | 1.173 | — .029 |
| Cresset | 1.026 | — .359 | | | |
| Chank | 1.940 | + .555 | M.R.T. | 1.202 | .389 |
| Araba | 1.625 | + .240 | | | |
| Jougs | .498 | — .887 | Ratan | 3.430 | |
| | | | Martin | 1.075 | |
| M.R.T. | 1.385 | .465 | M.R.T. | 2.252 | |
| Task fulfilled | 13 | | Task fulfilled | 9 | |
| " un " | 4 | | " un " | 3 | |

DECEMBER 22, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Acontium | .751 | — .087 | Araba | .963 | + .049 |
| Mino | 1.073 | + .235 | Dagon | .729 | — .185 |
| Chela | .767 | — .071 | Besague | .812 | — .102 |
| Koto | .653 | — .185 | Hippogriff | .841 | — .073 |
| Ampyx | .915 | + .077 | Pavon | .840 | — .074 |
| Hubblebubble | .365 | — .473 | Chank | 1.155 | + .241 |
| Sabbaton | .872 | + .034 | Martlet | .801 | — .113 |
| Cresset | .753 | — .085 | Parbuckle | .875 | — .039 |
| Argali | .971 | + .133 | Jougs | .742 | — .172 |
| Aplustre | .771 | — .067 | Burin | .796 | — .118 |
| Mambrino | .756 | — .082 | Aquaemanale | 1.233 | + .319 |
| Mace | 1.271 | + .433 | Corbel | 1.089 | + .175 |
| Brob | .985 | + .147 | Kago | 1.007 | + .093 |
| | | | Heaume | .919 | + .005 |
| M.R.T. | .838 | .162 | | | |
| | | | M.R.T. | .914 | .125 |
| Bunst | 1.636 | | | | |
| Swarp | 1.349 | | | | |
| M.R.T. | 1.492 | | | | |
| Task fulfilled | 13 | | Task fulfilled | 14 | |
| " un " | 1 | | " un " | 1 | |

DECEMBER 24, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Brob | 1.145 | + .197 | Burin | 1.100 | + .134 |
| Mino | .608 | — .340 | Corbel | .952 | — .014 |
| Pavon | .992 | + .044 | Besague | .768 | — .198 |
| Cresset | .783 | — .165 | Dagon | 1.492 | + .526 |
| Sabbaton | .828 | — .120 | Parbuckle | 1.113 | + .147 |
| Hubblebubble | .914 | — .034 | Chank | 1.157 | + .191 |
| Chela | 1.183 | + .235 | Aquaemanale | 1.402 | + .436 |
| Mace | .842 | — .106 | Kago | .988 | + .022 |
| Aplustre | .682 | — .266 | Mambrino | .805 | — .161 |
| Ampyx | .705 | — .243 | Jougs | .761 | — .205 |
| Martlet | .583 | — .365 | Heaume | .847 | — .119 |
| Argali | .658 | — .290 | Peruke | .564 | — .402 |
| Koto | 2.052 | +1.104 | Araba | 1.046 | + .080 |
| Costrel | 1.303 | + .355 | Hippogriff | 1.127 | + .161 |
| | | | Acontium | .378 | — .588 |
| M.R.T. | .948 | .276 | | | |
| | | | M.R.T. | .966 | .226 |
| Perlam | 1.207 | | | | |
| Kliksa | .849 | | | | |
| M.R.T. | 1.028 | | | | |
| Task fulfilled | 14 | | Task fulfilled | 15 | |
| " un " | 0 | | " un " | 0 | |

DECEMBER 28, 1917

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Burin | .514 | — .561 | Brob | 1.213 | + .281 |
| Corbel | .922 | — .153 | Mino | .793 | — .139 |
| Besague | 1.635 | + .560 | Pavon | .834 | + .098 |
| Dagon | 1.388 | + .313 | Cresset | .656 | — .276 |
| Parbuckle | 1.002 | — .073 | Sabbaton | .679 | — .253 |
| Chank | 1.074 | — .001 | Hubblebubble | .899 | — .033 |
| Aquaemanale | 1.646 | + .571 | Chela | .925 | — .007 |
| Kago | 1.185 | + .110 | Mace | .580 | — .352 |
| Mambrino | 1.025 | — .050 | Aplustre | .954 | + .022 |
| Jougs | .691 | — .384 | Ampyx | 1.189 | + .257 |
| Heaume | 1.020 | — .055 | Martlet | 1.091 | + .159 |
| Peruke | 1.115 | + .040 | Argali | .803 | — .129 |
| Araba | 1.047 | — .028 | Koto | 1.054 | + .122 |
| Hippogriff | .750 | — .325 | Costrel | 1.384 | + .452 |
| Acontium | 1.121 | + .046 | | | |
| M.R.T. | 1.075 | .218 | M.R.T. | .932 | .184 |
| | | | Perlam | 1.158 | |
| | | | Mepsol | 1.627 | |
| | | | M.R.T. | 1.392 | |
| Task fulfilled | 15 | | Task fulfilled | 14 | |
| " un " | 0 | | " un " | 0 | |

SUBJECT 7

MARCH 3, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Agonoderus | 1.391 | — .245 | Acrostolium | 1.248 | — .420 |
| Pantiles | 1.768 | + .132 | Lorcha | 1.363 | — .305 |
| Xylophone | 1.278 | — .358 | Warkamoowee | 1.914 | + .246 |
| Trousse | 1.229 | — .407 | Parement | 2.387 | + .719 |
| Camail | 2.378 | + .742 | Nog | 1.658 | — .010 |
| Ophicleide | 1.710 | + .074 | Biberon | 1.848 | + .180 |
| Winch | 1.229 | — .407 | Furcula | 1.598 | — .070 |
| Theseum | 1.186 | — .450 | Erminois | 1.333 | — .335 |
| Hypogeum | 1.672 | — .036 | | | |
| Gablet | 1.318 | — .318 | M.R.T. | 1.668 | .286 |
| Epi | 1.208 | — .428 | | | |
| Hooka | 2.399 | + .763 | | | |
| Emplectum | 2.508 | + .872 | | | |
| M.R.T. | 1.636 | .402 | | | |
| Task fulfilled | 13 | | Task fulfilled | 8 | |
| " un " | 2 | | " un " | 4 | |

MARCH 10, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Ophicleide | 1.207 | + .142 | Limber | 1.128 | + .012 |
| Erminois | .880 | — .185 | Winch | .783 | — .333 |
| Theseum | 1.043 | — .022 | Furcula | .910 | — .206 |
| Biberon | 1.541 | + .476 | Gablet | .906 | — .210 |
| Trousse | .904 | — .161 | Emplectum | .905 | — .211 |
| Hypogeum | 1.162 | + .097 | Mether | 1.052 | — .064 |
| Hooka | 1.007 | — .058 | Acrostolium | 1.269 | + .153 |
| Epi | 1.059 | — .006 | Parement | 1.318 | + .202 |
| Pantiles | .981 | — .084 | Warkamoowee | 1.015 | — .101 |
| Xylophone | .968 | — .097 | Nog | 1.145 | + .029 |
| Lorcha | .999 | — .066 | Camail | 1.850 | + .734 |
| Agonoderus | 1.040 | — .025 | | | |
| M.R.T. | 1.065 | .118 | M.R.T. | 1.116 | .205 |
| Task fulfilled | 12 | | Task fulfilled | 11 | |
| " un " | 4 | | " un " | 0 | |

APRIL 14, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Camail | 1.030 | — .356 | Warkamoowee | 1.159 | — .618 |
| Nog | 1.259 | — .127 | Pantiles | 1.027 | — .750 |
| Lorcha | 1.483 | + .097 | Furcula | 1.679 | — .098 |
| Hooka | 2.031 | + .645 | Agonoderus | 2.306 | + .529 |
| Epi | 1.376 | — .010 | Parement | 2.393 | + .616 |
| Xylophone | 1.458 | + .072 | Theseum | 1.649 | — .128 |
| Limber | 1.871 | + .485 | Biberon | 2.583 | + .806 |
| Emplectum | 1.287 | — .099 | Ophicleide | 1.570 | — .207 |
| Winch | .836 | — .550 | Hypogeum | 1.051 | — .726 |
| Gablet | 1.229 | — .157 | Aftaba | 2.362 | + .585 |
| M.R.T . | 1.386 | .259 | M.R.T. | 1.777 | .506 |
| Task fulfilled | 10 | | Task fulfilled | 10 | |
| " un " | 3 | | " un " | 4 | |

APRIL 21, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Ophicleide | 1.140 | — .087 | Xylophone | 1.266 | — .170 |
| Winch | 1.291 | + .064 | Limber | 1.132 | — .304 |
| Epi | .990 | — .237 | Hypogeum | 1.253 | — .183 |
| Emplectum | 1.093 | — .134 | Biberon | 2.194 | + .758 |
| Mether | 1.761 | + .534 | Hooka | 1.444 | + .008 |
| Trousse | 1.146 | — .091 | Aftaba | 1.444 | + .008 |
| Parement | 1.164 | — .063 | Lorcha | 1.276 | — .160 |
| Furcula | 1.188 | — .039 | Gablet | 1.220 | — .216 |
| Pantiles | 1.074 | — .153 | Acrostolium | 1.701 | + .265 |
| Maravedi | 1.616 | + .389 | | | |
| Camail | 1.093 | — .134 | M.R.T. | 1.436 | .230 |
| Theseum | 1.178 | — .049 | | | |
| M.R.T. | 1.227 | .164 | | | |
| Task fulfilled | 12 | | Task fulfilled | 9 | |
| " un " | 1 | | " un " | 1 | |

MAY 5, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Epi | .865 | — .135 | Biberon | .757 | — .360 |
| Mether | 1.941 | + .941 | Aftaba | 1.343 | + .266 |
| Parement | .911 | — .089 | Agonoderus | 1.227 | + .110 |
| Ophicleide | 1.020 | + .020 | Emplectum | 1.096 | — .021 |
| Camail | .841 | — .159 | Maravedi | 1.509 | + .392 |
| Erminois | 1.155 | + .155 | Limber | .834 | — .283 |
| Nog | .879 | — .121 | Trousse | .783 | — .334 |
| Xylophone | .834 | — .166 | Hooka | 1.467 | + .350 |
| Warkamoowee | .811 | — .189 | Hypogeum | 1.584 | + .467 |
| Winch | .862 | — .138 | Acrostolium | .938 | — .179 |
| Francisca | .881 | — .119 | Lorcha | 1.035 | — .082 |
| | | | Gablet | .836 | — .281 |
| M.R.T. | 1.000 | .203 | | | |
| | | | M.R.T. | 1.117 | .260 |
| Task fulfilled | 11 | | Task fulfilled | 12 | |
| " un " | 1 | | " un " | 1 | |

MAY 19, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Maravedi | 1.115 | + .227 | Erminois | 1.035 | + .116 |
| Hooka | .788 | — .100 | Agonoderus | .901 | — .018 |
| Nog | 1.139 | + .251 | Gablet | .861 | — .058 |
| Warkamoowee | .725 | — .163 | Furcula | 1.365 | + .446 |
| Acrostolium | .842 | — .046 | Ophicleide | .830 | — .089 |
| Lorcha | .753 | — .135 | Trousse | .700 | — .219 |
| Epi | .854 | — .034 | Emplectum | 1.338 | + .419 |
| | | | Camail | .734 | — .185 |
| M.R.T. | .888 | .137 | Limber | .850 | — .069 |
| | | | Xylophone | .862 | — .057 |
| | | | Winch | .859 | — .060 |
| | | | Theseum | .793 | — .126 |
| | | | Francisca | .936 | + .017 |
| | | | Aftaba | .814 | — .105 |
| | | | M.R.T. | .919 | .142 |
| Task fulfilled | 7 | | Task fulfilled | 14 | |
| " un " | 2 | | " un " | 1 | |

MAY 26, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Furcula | .875 | + .039 | Pantiles | .804 | — .059 |
| Theseum | .817 | — .019 | Erminois | .976 | + .113 |
| Nog | .957 | + .121 | Winch | .862 | — .001 |
| Hooka | .747 | — .089 | Maravedi | .904 | + .041 |
| Modillion | .852 | + .016 | Warkamoowee | .831 | — .032 |
| Limber | .812 | — .024 | Emplectum | .923 | + .060 |
| Agonoderus | .931 | + .095 | Trousse | .779 | — .084 |
| Camail | .800 | — .036 | Xylophone | .825 | — .038 |
| Parement | .688 | — .148 | Mether | .909 | + .046 |
| Lorcha | .996 | + .160 | Acrostolium | .878 | + .015 |
| Biberon | .869 | + .033 | Gablet | .860 | — .003 |
| Ophicleide | .784 | — .052 | Aftaba | .815 | — .048 |
| Hypogeum | .774 | — .062 | | | |
| Francisca | .840 | + .004 | M.R.T. | .863 | .045 |
| Epi | .808 | — .028 | | | |
| M.R.T. | .836 | .062 | | | |
| Task fulfilled | 15 | | Task fulfilled | 12 | |
| " un " | 0 | | " un " | 0 | |

JUNE 9, 1918

| MEANING | R.T. | M.V. | IMAGE | R.T. | M.V. |
|---|---|---|---|---|---|
| Acrostolium | .767 | — .033 | Nog | .720 | — .090 |
| Parement | .764 | — .036 | Maravedi | .713 | — .097 |
| Hooka | .885 | + .085 | Mether | 1.092 | + .282 |
| Pantiles | .668 | — .132 | Warkamoowee | .846 | + .036 |
| Theseum | .834 | + .034 | Ophicleide | .989 | + .179 |
| Gablet | .758 | — .042 | Trousse | .663 | — .147 |
| Epi | .829 | + .029 | Camail | .842 | + .032 |
| Erminois | .765 | — .035 | Emplectum | .749 | — .061 |
| Furcula | .894 | + .094 | Francisca | .778 | — .032 |
| Agonoderus | .787 | — .013 | Winch | .743 | — .067 |
| Biberon | .867 | + .067 | Modillion | .787 | — .023 |
| Limber | .791 | — .009 | Xylophone | .726 | — .084 |
| | | | Lorcha | .912 | + .102 |
| M.R.T. | .800 | .051 | Aftaba | .790 | — .020 |
| | | | M.R.T. | .810 | .089 |
| Task fulfilled | 12 | | Task fulfilled | 14 | |
| " un " | 0 | | " un " | 1 | |

TASK IMAGE

| | Image 1st. | Meaning 1st | Doubtful |
|---|---|---|---|
| 3/ 3 | 1.822 (5) | ..... (0) | 1.413 (3) |
| 3/10 | 1.154 (6) | 1.112 (4) | .905 (1) |
| 4/14 | 2.034 (3) | 1.395 (5) | 2.349 (2) |
| 4/21 | 1.416 (2) | 1.317 (6) | 2.194 (1) |
| 5/ 5 | 1.101 (7) | 1.139 (5) | ..... (0) |
| 5/19 | .920 (8) | .919 (6) | ..... (0) |
| 5/26 | .867 (8) | .857 (4) | ..... (0) |
| 6/ 9 | .809 (11) | .815 (3) | ..... (0) |

TASK MEANING

| | Image 1st | Meaning 1st. | Doubtful |
|---|---|---|---|
| 3/ 3 | 1.299 (3) | 1.739 (2) | 1.737 (8) |
| 3/10 | 1.246 (8) | 1.049 (4) | 1.040 (1) |
| 4/14 | 1.257 (3) | 1.342 (6) | 2.031 (1) |
| 4/21 | 1.259 (5) | 1.215 (6) | 1.146 (1) |
| 5/ 5 | 1.139 (5) | .882 (6) | ..... (0) |
| 5/19 | .873 (4) | .907 (3) | ..... (0) |
| 5/26 | .833 (11) | .846 (4) | ..... (0) |
| 6/ 9 | .795 (10) | .826 (2) | ..... (0) |

MEAN AVERAGES OF THE TOTALS

| | | | | | |
|---|---|---|---|---|---|
| 1.117 | 1.103 | 2.006 | 1.025 | 1.093 | 1.646 |
| Trials (50) | (33) | (6) | (49) | (33) | (11) |

$$\frac{\text{Meaning}}{\text{Image}} = \frac{33}{50} = .66 \qquad \frac{\text{Meaning}}{\text{Image}} = \frac{33}{49} = .67$$

TASK IMAGE

| DATE | I | M | D | I% | M% |
|---|---|---|---|---|---|
| 3/ 3 | 5 | 0 | 3 | 81 | 19 |
| 3/10 | 6 | 4 | 1 | 59 | 41 |
| 4/14 | 3 | 5 | 2 | 40 | 60 |
| 4/21 | 2 | 6 | 1 | 28 | 72 |
| 5/ 5 | 7 | 5 | 0 | 58 | 42 |
| 5/19 | 8 | 6 | 0 | 57 | 43 |
| 5/26 | 8 | 4 | 0 | 67 | 33 |
| 6/ 9 | 11 | 3 | 0 | 78 | 22 |

TASK MEANING

| I | M | D | I% | M% |
|---|---|---|---|---|
| 3 | 2 | 8 | 54 | 46 |
| 8 | 4 | 1 | 65 | 35 |
| 3 | 6 | 1 | 35 | 65 |
| 5 | 6 | 1 | 46 | 54 |
| 5 | 6 | 0 | 45 | 55 |
| 4 | 3 | 0 | 57 | 43 |
| 11 | 4 | 0 | 74 | 26 |
| 10 | 2 | 0 | 83 | 17 |